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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Edward Cain Examiner #: 69658 Date: 1/26/04
Art Unit: 1714 Phone Number: 302-1118 Serial Number: 02/224321
Mail Box and Bldg/Room Location: 10D-19 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Die attach adhesives with vinyl ether and urea functionality

Inventors (please provide full names): Osama M. Musa

Earliest Priority Filing Date: 3/18/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

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Type of Search		Vendors and cost where applicable:
Searcher: <u>82</u>	NA Sequence (#) _____	STN: <u>401.66</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>3</u> <u>(and)</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic <u>5</u>	Dr. Link _____
Date Completed: <u>1-29-04</u>	Litigation _____	Lexis/Nexis _____
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L1 FILE 'LREGISTRY' ENTERED AT 16:52:31 ON 29 JAN 2004
STR

L2 FILE 'REGISTRY' ENTERED AT 17:05:55 ON 29 JAN 2004
0 S L1

L3 FILE 'LREGISTRY' ENTERED AT 17:06:01 ON 29 JAN 2004
STR L1

L4 FILE 'REGISTRY' ENTERED AT 17:11:47 ON 29 JAN 2004
0 S L3

L5 FILE 'HCAPLUS' ENTERED AT 17:12:57 ON 29 JAN 2004
34 S MUSA O?/AU
L6 29818 S ?VINYLETHER? OR (VINYL## OR ?VINYL) (2A)ETHER#
L7 194931 S UREA#

L8 FILE 'LCA' ENTERED AT 17:14:01 ON 29 JAN 2004
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L10 FILE 'HCAPLUS' ENTERED AT 17:15:38 ON 29 JAN 2004
7 S L5 AND L6
L11 4 S L5 AND L7
L12 16 S L5 AND L9
L13 3 S L10 AND L11 AND L12
SEL L13 1 RN

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L15 3 S E3
L16 1 S L15 AND L14

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L18 109 S L16

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L22 1 S L21 AND L18
L23 11 S L18 AND L17
L24 1 S L23 AND L7
L25 477 S L17 AND L7
L26 133 S L25 AND L9
L27 61638 S DIE OR DIES
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L30 7 S L23 AND L27

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L31 42 S L3 FUL
SAV L31 CAI321/A

FILE 'HCAPLUS' ENTERED AT 17:44:34 ON 29 JAN 2004

L32 16 S L31

FILE 'LREGISTRY' ENTERED AT 17:45:09 ON 29 JAN 2004

L33 STR

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L34 3 S L33
L35 558 S L33 FUL
SAV L35 CAI321A/A

FILE 'HCAPLUS' ENTERED AT 17:53:30 ON 29 JAN 2004

L36 1105 S L35
L37 1 S L36 AND L18
L38 48787 S ?DIISOCYANAT?
L39 7 S L36 AND L38

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L40 STR

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2 S L35 AND ?DIISOCYANAT?/CNS

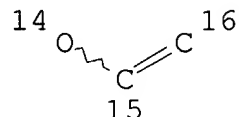
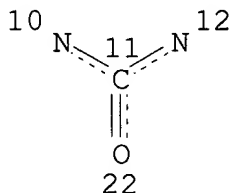
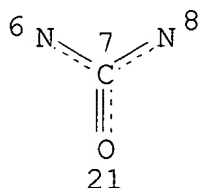
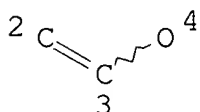
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2 S L44

L46 FILE 'REGISTRY' ENTERED AT 17:57:50 ON 29 JAN 2004
37107 S ?DIISOCYANAT?/CNS

L47 FILE 'HCAPLUS' ENTERED AT 17:58:28 ON 29 JAN 2004
62939 S L46
L48 8 S L36 AND L47
L49 716 S L17 AND (L47 OR L38)
L50 249 S L49 AND L9
L51 8 S L50 AND L27
L52 18 S L22 OR L24 OR L28 OR L30 OR L37 OR L39 OR L43 OR L45 OR
L53 20 S (L23 OR L29 OR L32) NOT L52

FILE 'REGISTRY' ENTERED AT 18:03:20 ON 29 JAN 2004

=> d l31 que stat
L3 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L31 42 SEA FILE=REGISTRY SSS FUL L3

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SEARCH TIME: 00.00.01

42 ANSWERS

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1 2 3 4 5

REP G1=(1-6) 8
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NSPEC IS RC AT 8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
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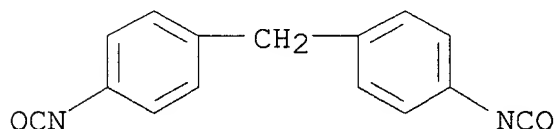
L52 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 2003:133378 Document No. 138:171429 Curable silicon-containing
 adhesion promoting resins useful in adhesives, coatings or sealants.
 Musa, Osama M. (National Starch and Chemical Investment Holding
 Corporation, USA). PCT Int. Appl. WO 2003014248 A2 20030220, 75 pp.
 DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR,
 BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
 LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
 OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
 TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW; RW: AT, BE, CH, CY, DE, DK, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN:
 PIXXD2. APPLICATION: WO 2002-US20502 20020628. PRIORITY: US
 2001-923494 20010807.

AB The title resins can be designed to be flexible and to have an
 appropriate mol. wt. to provide low volatility and low viscosity,
 and can be represented by a general formula: $[(R1O)_3-nSiR2nAL]Q[LAR2nSi(R1O)_3-n]_0-1$, wherein Q=oligomeric polymer chain
 contg. at least one double bond, R1=Me or Et, R2=C1-4 alkyl, vinyl,
 or arom. group, n=0-2, A=hydrocarbyl, L=linking group. An example
 was prepd. by reacting 3-isocyanatopropyltriethoxysilane with Poly
 bd-R 20LM (OH-terminated polybutadiene) to give triethoxysilane-
 terminated polybutadiene, which was used in adhesive formulation
 showing good adhesion to Ag-coated copper and Cu leadframe.

IT **101-68-8DP**, MDI, reaction product with OH-terminated and
 epoxidized butadiene rubber and alkoxysilanes **66415-55-2DP**
 , 3-Aminopropyl vinyl ether, reaction product with chlorinated and
 epoxidized butadiene rubber, MDI and alkoxysilanes
 (curable silicon-contg. adhesion promoters useful in adhesives,
 coatings or sealants)

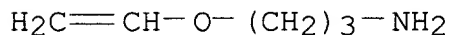
RN 101-68-8 HCAPLUS

CN Benzene, 1,1'-methylenebis[4-isocyanato- (9CI) (CA INDEX NAME)



RN 66415-55-2 HCAPLUS

CN 1-Propanamine, 3-(ethenyloxy)- (9CI) (CA INDEX NAME)



IC ICM C09J201-10

ICS C08G018-71; C07F007-18; C08C019-25; C08F279-02; C08F008-42;
C09D007-12

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 56, 76

IT 60-24-2DP, Mercaptoethanol, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 101-68-8DP, MDI, reaction product with OH-terminated and epoxidized butadiene rubber and alkoxysilanes 104-54-1DP, Cinnamyl alcohol, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 141-75-3DP, Butanoyl chloride, reaction product with amino-terminated and epoxidized butadiene rubber and alkoxysilanes 814-68-6DP, Acryloyl chloride, reaction product with OH-terminated butadiene rubber, isocyanates and alkoxysilanes 818-61-1DP, 2-Hydroxyethyl acrylate, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 920-46-7DP, Methacrylic chloride, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 998-30-1DP, Triethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 1476-23-9DP, Allyl isocyanate, reaction product with chlorinated and epoxidized butadiene rubber and alkoxysilanes 1585-90-6DP, N-(2-Hydroxyethyl)maleimide, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 1592-20-7DP, 4-Vinylbenzyl chloride, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 1760-24-3DP, N-.beta.(Aminoethyl)-.gamma.-aminopropyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 1871-21-2DP, Trivinylchlorosilane, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 2094-99-7DP, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 2459-05-4DP, Fumaric acid monoethyl ester, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 2487-90-3DP, Trimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 2687-12-9DP, Cinnamyl chloride, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 3158-26-7DP, Octyl isocyanate, reaction product with chlorinated and epoxidized butadiene rubber and alkoxysilanes 4420-74-0DP, .gamma.-Mercaptopropyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 7003-80-7DP, p-Aminophenyltriethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 7691-02-3DP, 1,3-Divinyltetramethyldisilazane, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 7791-25-5DP, Sulfonyl chloride, reaction product with OH-terminated and epoxidized butadiene rubber, isocyanates and alkoxysilanes 15396-00-6DP, 3-Isocyanatopropyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI

17306-05-7DP, Chloromethylphenylvinylsilane, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes
24801-88-5DP, 3-Isocyanatopropyltriethoxysilane, reaction product with OH-terminated butadiene rubber 33976-43-1DP,
p-Aminophenyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 42168-36-5P
66415-55-2DP, 3-Aminopropyl vinyl ether, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes
95627-94-4DP, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxysilanes 497265-71-1P
497265-72-2P 497265-73-3P 497265-74-4P 497265-75-5P
497265-76-6P 497265-77-7P 497265-78-8P 497265-79-9P
497265-80-2P 497265-81-3P 497265-82-4P 497265-83-5P
497265-84-6P 497265-85-7P 497265-86-8P 497265-87-9P
497265-88-0P 497265-89-1P

(curable silicon-contg. adhesion promoters useful in adhesives, coatings or sealants)

L52 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:675416 Document No. 137:338568 Acid-enhanced interfacial polymer layer growth. Major, J. S.; Blanchard, G. J. (Department of Chemistry, Michigan State University, East Lansing, MI, 48824-1322, USA). Chemistry of Materials, 14(10), 4320-4327 (English) 2002. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

AB We report on the growth of interfacial multilayer structures formed from maleimide-vinyl ether alternating copolymers. The thickness and d. of these polymer layers can be controlled by adding acid to the interlayer crosslinking reaction. We have demonstrated this control for several different interlayer crosslinking strategies, where amide, ester, urea, and urethane interlayer covalent bonds are formed. For all reactions, the addn. of concd. acid during polymer layer deposition resulted in a 2- to 4-fold increase in the loading d. of the polymer relative to the acid-free reaction, depending on the acid used and its concn. These findings are consistent with acid catalysis (HCl) and/or dehydration (H2SO4).

IT **441350-36-3P 441350-41-0P 474282-21-8P**

(crosslinked multilayer; acid-enhanced interfacial polymer layer growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

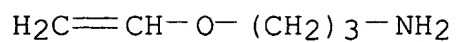
RN 441350-36-3 HCAPLUS

CN Hexanedioyl dichloride, polymer with 1-(3-chlorophenyl)-1H-pyrrole-2,5-dione and 3-(ethenyloxy)-1-propanamine (9CI) (CA INDEX NAME)

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CRN 66415-55-2

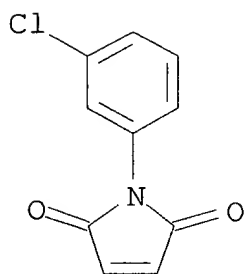
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CRN 1204-35-9

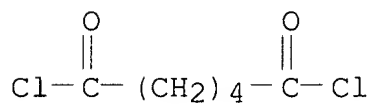
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CRN 111-50-2

CMF C6 H8 Cl2 O2



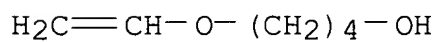
RN 441350-41-0 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-phenyl-, polymer with 1,6-diisocyanatohexane
and 4-(ethenyloxy)-1-butanol (9CI) (CA INDEX NAME)

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CRN 17832-28-9

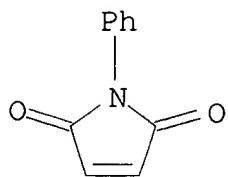
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CM 2

CRN 941-69-5

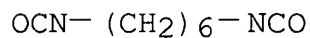
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CM 3

CRN 822-06-0

CMF C8 H12 N2 O2



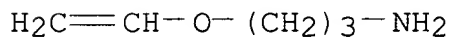
RN 474282-21-8 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-(4-bromophenyl)-, polymer with
 1,6-diisocyanatohexane and 3-(ethenyloxy)-1-propanamine (9CI) (CA
 INDEX NAME)

CM 1

CRN 66415-55-2

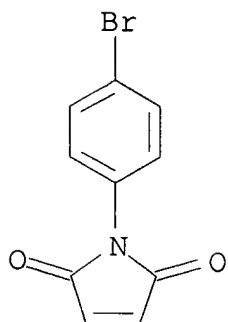
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CM 2

CRN 13380-67-1

CMF C10 H6 Br N O2



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2

OCN- (CH₂)₆-NCO

IT **460983-70-4**, 3-Aminopropyl vinyl ether-N-(3-chlorophenyl)maleimide alternating copolymer **460983-71-5**, 3-Aminopropyl vinyl ether-N-(4-bromophenyl)maleimide alternating copolymer
 (individual layer; acid-enhanced interfacial polymer layer growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

RN 460983-70-4 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-(3-chlorophenyl)-, polymer with 3-(ethenyloxy)-1-propanamine, alternating (9CI) (CA INDEX NAME)

CM 1

CRN 66415-55-2

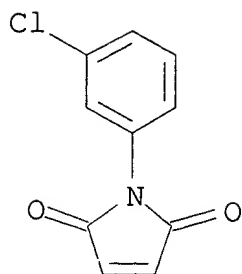
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H₂C=CH-O-(CH₂)₃-NH₂

CM 2

CRN 1204-35-9

CMF C10 H6 Cl N O2



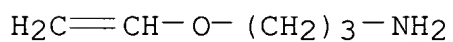
RN 460983-71-5 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-(4-bromophenyl)-, polymer with
3-(ethenyloxy)-1-propanamine, alternating (9CI) (CA INDEX NAME)

CM 1

CRN 66415-55-2

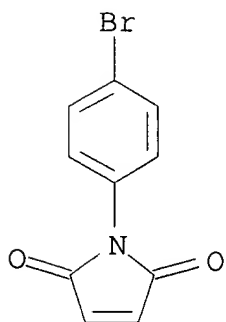
CMF C5 H11 N O



CM 2

CRN 13380-67-1

CMF C10 H6 Br N O2



CC 37-6 (Plastics Manufacture and Processing)

IT 441350-36-3P 441350-37-4P 441350-41-0P

474282-21-8P

(crosslinked multilayer; acid-enhanced interfacial polymer layer)

growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

IT 441309-57-5, N-Phenylmaleimide-1-vinyloxy-4-butanol alternating copolymer **460983-70-4**, 3-Aminopropyl vinyl ether-N-(3-chlorophenyl)maleimide alternating copolymer **460983-71-5**, 3-Aminopropyl vinyl ether-N-(4-bromophenyl)maleimide alternating copolymer (individual layer; acid-enhanced interfacial polymer layer growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

L52 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:360443 Document No. 137:94145 Strategies for Covalent Multilayer Growth. 2. Interlayer Linking Chemistry. Major, J. S.; Blanchard, G. J. (Department of Chemistry, Michigan State University, East Lansing, MI, 48824-1322, USA). Chemistry of Materials, 14(6), 2574-2581 (English) 2002. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

AB A strategy was developed for covalent assembly of polymer multilayers at interfaces, where growth is accomplished one layer at a time. The individual layer constituents are maleimide-vinyl ether alternating copolymers with side groups that possess reactive functionalities that form interlayer bonds. Selective amide, ester, ether, urea, and urethane interlayer linkages were formed by the covalent assembly process with controlled multilayer growth. The resulting multilayer structures show linear growth in terms of thickness, measured ellipsometrically, and total mass loading, measured by UV-visible and FTIR spectroscopies.

IT **441350-36-3P**, Adipoyl chloride-3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide copolymer **441350-40-9P**, 3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide-1,6-diisocyanatohexane copolymer **441350-41-0P**, 4-Hydroxybutyl vinyl ether-N-phenylmaleimide-1,6-diisocyanatohexane copolymer

(covalent bond formation between layers of functionalized maleimide-vinyl ether copolymers and crosslinkers to obtain multilayers)

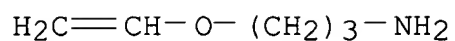
RN 441350-36-3 HCAPLUS

CN Hexanedioyl dichloride, polymer with 1-(3-chlorophenyl)-1H-pyrrole-2,5-dione and 3-(ethenyloxy)-1-propanamine (9CI) (CA INDEX NAME)

CM 1

CRN 66415-55-2

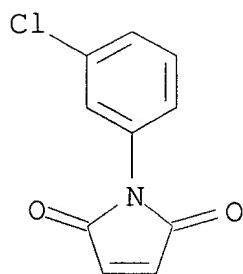
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CM 2

CRN 1204-35-9

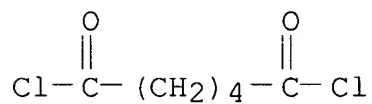
CMF C10 H6 Cl N O2



CM 3

CRN 111-50-2

CMF C6 H8 Cl2 O2



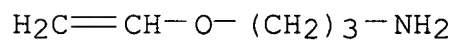
RN 441350-40-9 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-(3-chlorophenyl)-, polymer with
1,6-diisocyanatohexane and 3-(ethenyloxy)-1-propanamine (9CI) (CA
INDEX NAME)

CM 1

CRN 66415-55-2

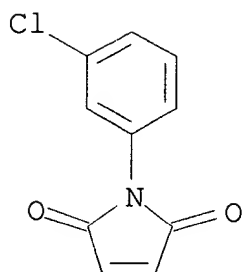
CMF C5 H11 N O



CM 2

CRN 1204-35-9

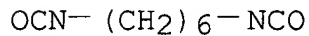
CMF C10 H6 Cl N O2



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2



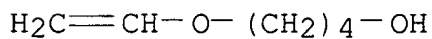
RN 441350-41-0 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-phenyl-, polymer with 1,6-diisocyanatohexane and 4-(ethenyloxy)-1-butanol (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

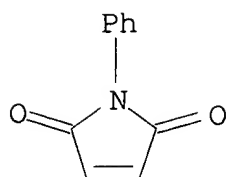
CMF C6 H12 O2



CM 2

CRN 941-69-5

CMF C10 H7 N O2



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

IT 331430-51-4DP, Ethyl vinyl ether diisopropyl phosphonate-4-hydroxyphenylmaleimide alternating copolymer, hydrolyzed, metal salts 441309-61-1DP, 4-Pentenoyl chloride-N-phenylmaleimide alternating copolymer, ester or amide linker assembly **441350-36-3P**, Adipoyl chloride-3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide copolymer 441350-37-4P 441350-38-5P 441350-39-6P **441350-40-9P**, 3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide-1,6-**diisocyanatohexane** copolymer **441350-41-0P**, 4-Hydroxybutyl vinyl ether-N-phenylmaleimide-1,6-**diisocyanatohexane** copolymer (covalent bond formation between layers of functionalized maleimide-vinyl ether copolymers and crosslinkers to obtain multilayers)

L52 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:31087 Document No. 136:86899 Die attach

adhesive compositions containing epoxy resin having allyl or vinyl groups with improved **adhesion**. Bonneau, Mark R.; Shin, Yun K.; Hoang, Gina; Sobczak, Martin (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 1170346 A2 20020109, 6 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-115670 20010704. PRIORITY: US 2000-611899 20000707.

AB The compns., useful in microelectronic applications, comprises (A) 10-80% resin curable by free-radical polymn. or hydrosilation, (b) 0.1-30% epoxy compd. having vinyl or allyl functionality, (c) 0.1-3%

curing agent for the epoxy compd., (d) 0.1-10% curing agent for the resin, and (e) optionally, 20-90% filler. Thus, an **adhesive** compn. comprising proprietary bismaleimide 19.04, 4,4'-bismaleimidodiphenylmethane 0.52, 2,6-diglycidylphenyl allyl ether 1.2%, Ricon 130 (polybutadiene) 2.61, Allied signal VE 1312 (polyester **vinyl ether** resin) 1.57, cinnamyl alc.- **diisocyanate** dimer adduct 3.39, Witco A 174 (methacryloxysilane) 0.4, 1,1-di(tert-amylperoxy)cyclohexane 0.65, 2-ethyl-4-methylimidazole 0.25, and silver flake 70 parts was used for bonding a silicon **die** to a bond pad on a lead frame, showing hot dry **die** shear strength (at 250.degree.) 14.1 kg.

- IC ICM C09J163-00
- ICS C08G059-20; C09J201-02
- CC 38-3 (Plastics Fabrication and Uses)
- Section cross-reference(s): 76
- ST **die** attach **adhesive** microelectronic device;
- allyl vinyl epoxy **adhesion** modifier **adhesive**
- IT Butadiene rubber, uses
(Ricon 130; **die** attach **adhesive** compns.
contg. epoxy resin having allyl or vinyl groups with improved
adhesion)
- IT Epoxy resins, uses
(**adhesion** modifier; **die** attach
adhesive compns. contg. epoxy resin having allyl or vinyl
groups with improved **adhesion**)
- IT Polyimides, uses
(bismaleimide-based; **die** attach **adhesive**
compns. contg. epoxy resin having allyl or vinyl groups with
improved **adhesion**)
- IT **Adhesives**
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)
- IT Acrylic polymers, uses
- Polyesters, uses
- Polyethers, uses
- Polysiloxanes, uses
- Polyurethanes, uses
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)
- IT Crosslinking agents
- Crosslinking catalysts
- Microelectronic devices
- Semiconductor devices
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**)

- for)
- IT 15667-10-4, 1,1-Di(tert-amylperoxy)cyclohexane
(90MD; **die** attach **adhesive** compns. contg.
epoxy resin having allyl or vinyl groups with improved
adhesion)
- IT 96-08-2DP, Limonene dioxide, polymers 3678-15-7DP, Glycidyl
vinyl ether, polymers 102194-47-8DP, polymers
192569-50-9P
(**adhesion** modifier; **die** attach
adhesive compns. contg. epoxy resin having allyl or vinyl
groups with improved **adhesion**)
- IT 9003-17-2
(butadiene rubber, Ricon 130; **die** attach
adhesive compns. contg. epoxy resin having allyl or vinyl
groups with improved **adhesion**)
- IT 286959-46-4, VE 1312
(curing agent; **die** attach **adhesive** compns.
contg. epoxy resin having allyl or vinyl groups with improved
adhesion)
- IT 931-36-2, 2-Ethyl-4-methylimidazole
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)
- IT 386736-60-3P
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)
- IT 13676-54-5D, 4,4'-Bismaleimidodiphenylmethane, polymers
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)

L52 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

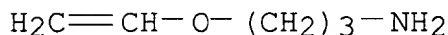
2001:850776 Document No. 135:372823 **Die**-attach

adhesives with **vinyl ether** and carbamate
or **urea** functionality. Musa, Osama M.; Herr, Donald E.
(National Starch and Chemical Investment Holding Corporation, USA).
Eur. Pat. Appl. EP 1156068 A1 20011121, 9 pp. DESIGNATED STATES: R:
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE,
SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP
2001-111271 20010516. PRIORITY: US 2000-573303 20000518.

AB A **die** attach **adhesive** comprises (a) 5-30% of a
mixt. of a **vinyl ether** compd. contg. polar
functionality and an electron acceptor compd., (b) 0.01-10.0% of a
free-radical initiator or photoinitiator, and (c) 70-95% of a
conductive or nonconductive filler, in which the **vinyl**
ether has the structure $[R_1CR_2:CR_3OQXCOY]_nZ$, in which n is 1
to 6; R₁, R₂, and R₃ are hydrogen, Me or ethyl; Q is an alkyl or

cycloalkyl linear or branched chain having 1 to 12 carbon atoms; an alkyleneoxy chain having 1 to 12 carbon atoms, or arom. or fused arom. ring having 3 to 10 carbon atoms and optionally contg. the heteroatoms O, N or S; X and Y are independently O, NR1, or S, with the proviso that both X and Y cannot be oxygen or sulfur; Z is a branched or linear alkane, which may contain cyclic moieties, a siloxane, a polysiloxane, a Cl-4 alkoxy-terminated siloxane or polysiloxane, a polyether, a polyester, a polyurethane, a poly(butadiene), or an arom., polyarom., or heteroarom. group. The **adhesives** are suitable for use in microelectronics applications and show enhanced **adhesive** strength compared to compds. that do not contain carbamate, thiocarbamate or **urea** functionality.

IT 66415-55-2DP, reaction products with dimer
diisocyanate
(die-attach **adhesives** with vinyl
ether and carbamate or **urea** functionality)
RN 66415-55-2 HCAPLUS
CN 1-Propanamine, 3-(ethenyloxy)- (9CI) (CA INDEX NAME)



IT 39340-26-6DP, DDI 1410, reaction products with
monovinyl ethers
(die-attach **adhesives** with vinyl
ether and carbamate or **urea** functionality)
RN 39340-26-6 HCAPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

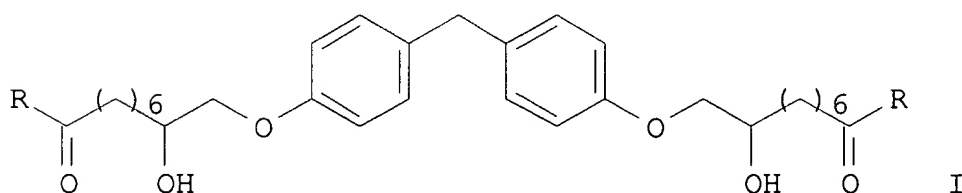
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C08G018-67
ICS C08G073-12; C09J175-16
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
ST die attach **adhesive** vinyl
ether
IT Polyimides, preparation
(bismaleimide-based; die-attach **adhesives**
with vinyl ether and carbamate or
urea functionality)
IT **Adhesives**
(die attach; die-attach **adhesives**
with vinyl ether and carbamate or
urea functionality)
IT Fluoropolymers, uses
(filler; die-attach **adhesives** with

- vinyl ether and carbamate or urea functionality)
- IT 27336-16-9DP, reaction products with dimer **diisocyanate**
66415-55-2DP, reaction products with dimer **diisocyanate**
 (die-attach adhesives with vinyl ether and carbamate or urea functionality)
- IT 39340-26-6DP, DDI 1410, reaction products with monovinyl ethers
 (die-attach adhesives with vinyl ether and carbamate or urea functionality)
- IT 114651-37-5D, reaction products with dimer **diisocyanate**
 (die-attach adhesives with vinyl ether and carbamate or urea functionality)
- IT 7440-22-4, Silver, uses 9002-84-0, Polytetrafluoroethylene (filler; die-attach adhesives with vinyl ether and carbamate or urea functionality)

L52 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 2000:344473 Document No. 132:348686 Preparation of allylated amides and die-attach adhesive prepared from the amides for microelectronic devices. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corp., USA). Jpn. Kokai Tokkyo Koho JP 2000143597 A2 20000523, 142 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-188897 19990702. PRIORITY: US 1998-PV915097 19980702; US 1999-336082 19990618.

GI



- AB [CH₂:CHNR₉CO-X_m]_nQ [m = 0,1; n = 1-6; R₉ = H, C1-18 alkyl, C1-18 alkyleneoxy, allyl, aryl, (un)substituted Ph; X = phenylene, C₆H₄CO₂, C₆H₄O, C₆H₄O₂C, C₆H₄O₂CNH; Q = (a) linear or branched alkyl, alkyloxy, alkylamine, alkylsulfide, alkylene, alkyleneoxy, alkyleneamine, alkylenesulfide, aryl, aryloxy, or arylsulfide each having up to 100 atoms in the chain, (b) urethane represented by formula -R₂-X-CONH-R₃-NH-CO(O-R₃-O-CONH-R₃-NHCO)_v-X-R₂-X- (wherein R₂ = C1-18 alkyl, aryl, aralkyl; R₃ = alkyl or alkyloxy having up to 100 atoms in the chain), (c) siloxane represented by formula

-(C(R1)2)e-[Si(R4)2-O]f-Si(R4)2-(C(R1)2)g- (wherein R1 = H, C1-5 alkyl; R4 = C1-5 alkyl, aryl; e, g = 1-10; f = 1-50), etc.] are prepd. Thus, addn. reaction of bisphenol F with 1,2-epoxy-9-decene in the presence of benzyltrimethylamine in THF at 70.degree. for 7 h followed by oxidn. with KMnO4 in THF gave dicarboxylic acid (I; R = OH) which was amidated with diallylamine using DCC in CH2Cl2 to give diallylamide I [R = N(CH2CH:CH2)2].

IT 39340-26-6DP, DDI 1410, reaction product with m-nitrobenzyl alc., reduced, maleimide deriv.

(prepn. of allylated amides and **die-attach**

adhesive prepd. from amides for microelectronic devices)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

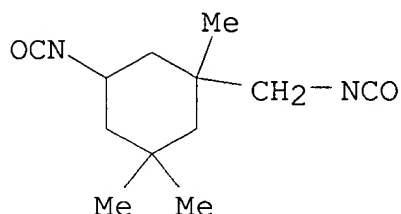
IT 4098-71-9, Isophorone **diisocyanate**

(prepn. of allylated amides and **die-attach**

adhesive prepd. from amides for microelectronic devices)

RN 4098-71-9 HCAPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



IC C07C233-05; C07C235-06; C08F026-02; C08F299-00; C08G018-83; C08G063-685; C08G063-695; C08G065-00; C08G069-00; C08G075-02; C08G077-26; C09J139-00; C09J155-00; C09J167-06; C09J175-14; C09J183-07; H01L021-52

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 25, 27, 76

ST allylated amide prepn **die attach adhesive**;
microelectronic device **adhesive**

IT Fatty acids, uses

(C18-unsatd., dimers and trimers, reaction product with propargyl alc. and lauryl mercaptan; prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)

IT Butadiene rubber, reactions

(maleated; prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)

- IT **Adhesives**
 Microelectronic devices
 Microelectronics
 (prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 268747-00-8
 (**adhesive**; prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 9003-17-2
 (butadiene rubber, maleated; prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 253661-99-3P 268747-03-1P
 (prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 107-19-7DP, Propargyl alcohol, reaction product with dimer diol (Pripol 2033) and lauryl mercaptan 112-55-0DP, Lauryl mercaptan, reaction product with dimer diol (Pripol 2033) and propargyl alc. **39340-26-6DP**, DDI 1410, reaction product with m-nitrobenzyl alc., reduced, maleimide deriv. 102114-99-8P, N-Allylpalmitamide 158516-85-9DP, Pripol 2033, diacryloyl ester deriv. 158516-85-9DP, Pripol 2033, **divinyl ether** deriv. 158516-85-9DP, Pripol 2033, reaction product with 6-maleimidocaproic acid 203193-13-9P 253661-94-8P 253661-95-9P 253662-01-0P 253662-10-1P 268747-01-9P 268747-02-0P
 (prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 9003-18-3DP, Poly(butadiene-acrylonitrile), nitrile rubber, amine-terminated, Hycar ATBN 1300X42, maleimide derivs.;
 (prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl **vinyl ether** 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 124-02-7, Diallylamine 619-25-0, m-Nitrobenzyl alcohol 620-92-8, Bisphenol F 814-68-6, Acryloyl chloride 1585-90-6, N-(2-Hydroxyethyl)maleimide 2451-62-9, Tris(epoxypropyl)isocyanurate **4098-71-9**, Isophorone **diisocyanate** 7300-91-6, N-(4-Hydroxyphenyl)maleimide 85721-25-1, 1,2-Epoxy-9-decene
 (prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 55750-53-3P, 6-Maleimidohexanoic acid 253662-09-8P
 (prepn. of allylated amides and **die-attach adhesive** prepd. from amides for microelectronic devices)
- IT 107-11-9DP, Allylamine, reaction product with maleinized

poly(butadiene) (Rikon 131MA12) 124-02-7DP, Diallylamine, reaction product with aci chloride of dimer acid (Empol 1024)
 126968-43-2DP, Versamine 552, p-nitrobenzamide deriv., reduced, maleimide deriv. 126968-43-2DP, Versamine 552, reaction product with maleic anhydride (bismaleimide deriv.)
 (prepn. of allylated amides and **die**-attach
adhesive prepd. from amides for microelectronic devices)

L52 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 2000:268555 Document No. 132:309393 Curable compositions and **adhesive** compositions for manufacture of circuit parts and printed circuit boards. Tong, Quinn K.; Ma, Bodan; Xiao, Chaodong (National Starch and Chemical Investment Holding Corp., USA). Jpn. Kokai Tokkyo Koho JP 2000119335 A2 20000425, 111 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-188845 19990702. PRIORITY: US 1998-PV91490 19980702; US 1999-336324 19990618.

AB Title curable compns. contain (A) maleimides and (B) curing initiators consisting of free-radical initiators and/or photopolymn. initiators. Title **adhesive** compns. contain (C) vinyl compds. and B. Markush structures of A and C are given in the document. Thus, a compn. contg. Versalink P 650 (bismaleimide), cyclohexanedimethanol **divinyl ether**, and Irgacure 651 (.alpha.,.alpha.-dimethoxy-.alpha.-phenylacetophenone) was irradiated with UV light to bond a Si **die**.

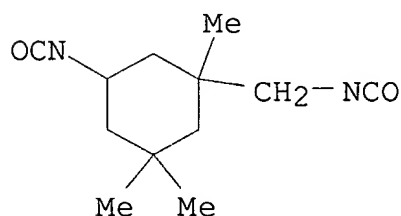
IT **39340-26-6DP**, DDI 1410, bismaleimide derivs.
 (maleimide-contg. photocurable **adhesive** compns. for manuf. of printed circuit boards)

RN 39340-26-6 HCAPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **4098-71-9**, 5-Isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane
 (maleimide-contg. photocurable **adhesive** compns. for manuf. of printed circuit boards)

RN 4098-71-9 HCAPLUS
 CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (9CI) (CA INDEX NAME)

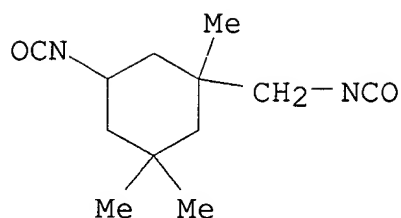


- IC ICM C08F022-40
ICS C08F002-48; C08F299-02; C09J157-00; C09J201-00; G03F007-035;
C07D207-452
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
- ST maleimide photocurable **adhesive** printed circuit board
- IT Fatty acids, uses
(C18-unsatd., dimers and trimers, Empol 1024, reaction products
with propargyl alc. and laurylmercaptan; maleimide-contg.
photocurable **adhesive** compns. for manuf. of printed
circuit boards)
- IT Nitrile rubber, uses
(amine-terminated, Hycar ATBN 1300X42, bismaleimide derivs.;
maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)
- IT Polyimides, uses
(bismaleimide-based; maleimide-contg. photocurable
adhesive compns. for manuf. of printed circuit boards)
- IT Electronic device fabrication
Printed circuit boards
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)
- IT **Adhesives**
(photocurable; maleimide-contg. photocurable **adhesive**
compns. for manuf. of printed circuit boards)
- IT 24650-42-8, Irgacure 651
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)
- IT 55750-53-3P, 6-Maleimidocaproic acid 253661-99-3P 253662-00-9P
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)
- IT 107-05-1DP, Allyl chloride, reaction products with dimer diol
107-19-7DP, Propargyl alcohol, reaction products with dimer acid and
laurylmercaptan 108-31-6DP, Maleic anhydride, reaction products
with dimer diamine derivs. 111-34-2DP, Butyl **vinyl**
ether, reaction products with dimer diol 112-55-0DP,
Laurylmercaptan, reaction products with acetylene-terminated dimer
acid 122-04-3DP, p-Nitrobenzoyl chloride, reaction products with
dimer diamine and maleic anhydride 619-25-0DP, reaction products
with dimer **diisocyanate**, bismaleimide derivs.
39340-26-6DP, DDI 1410, bismaleimide derivs. 55750-53-3DP,
6-Maleimidocaproic acid, reaction products with dimer diol
116503-80-1P 126968-43-2DP, Versamine 552, bismaleimide derivs.
158516-85-9DP, Pripol 2033, bismaleimide derivs. 203193-13-9P
253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P
253662-01-0P 265111-20-4P
(maleimide-contg. photocurable **adhesive** compns. for

- manuf. of printed circuit boards)
- IT 56-81-5, Glycerol, reactions 108-31-6, Maleic anhydride, reactions
112-67-4, Palmitoyl chloride 589-16-2, 4-Ethylaniline 619-25-0
1319-82-0, Aminocaproic acid 1585-90-6, N-(2-
Hydroxyethyl)maleimide 2451-62-9, Tris(epoxypropyl) isocyanurate
4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1,3,3-
trimethylcyclohexane 27030-32-6, Decanediol 43048-02-8
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)
- IT 9003-18-3P
(nitrile rubber, amine-terminated, Hycar ATBN 1300X42,
bismaleimide derivs.; maleimide-contg. photocurable
adhesive compns. for manuf. of printed circuit boards)
- L52 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:34590 Document No. 132:94357 Allylated amide compounds and
die attach **adhesives** prepared therefrom. Schultz,
Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical
Investment Holding Corporation, USA). Eur. Pat. Appl. EP 970946 A2
20000112, 66 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,
GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
(English). CODEN: EPXXDW. APPLICATION: EP 1999-112722 19990701.
PRIORITY: US 1998-91509 19980702; US 1999-336082 19990618.
- AB The title compds. comprise [CH₂:CHCH₂NR₉COX_m]_nQ [m is 0 or 1; n is 1
to 6; R₉ is H, an alkyl group having 1 to 18 carbon atoms, an
alkyleneoxy group having 1 to 18 carbon atoms, an allyl group, an
aryl group, or a substituted aryl group; X is an arom. group; Q is a
linear or branched chain alkyl, alkyloxy, alkyl amine, alkyl
sulfide, alkylene, alkyleneoxy, alkyleneamine, alkylene sulfide,
aryl, aryloxy, or aryl sulfide species having up to about 100 atoms
in the chain, a urethane, a siloxane, or an ester].
- IT **39340-26-6DP**, DDI 1410, reaction products with m-nitrobenzyl
alc., hydrogenated, bismaleimides
(allylated amide compds. and **die** attach
adhesives prepd. therefrom)
- RN 39340-26-6 HCAPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

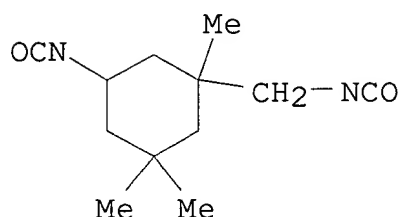
- IT **4098-71-9**, 5-Isocyanato-1-(isocyanatomethyl)-1, 3,
3-trimethylcyclohexane
(allylated amide compds. and **die** attach
adhesives prepd. therefrom)
- RN 4098-71-9 HCAPLUS
CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
(9CI) (CA INDEX NAME)



- IC ICM C07C235-76
ICS C07C235-20; C07C233-05; C09J139-00; H01L021-58
CC 38-3 (Plastics Fabrication and Uses)
ST allylated amide **adhesive die** attach
IT Fatty acids, preparation
(C18-unsatd., dimers and trimers, reaction products with diallylamine; allylated amide compds. and **die** attach **adhesives** prepd. therefrom)
IT **Adhesives**
Semiconductor devices
(allylated amide compds. and **die** attach **adhesives** prepd. therefrom)
IT Nitrile rubber, preparation
(amine-terminated, maleimides; allylated amide compds. and **die** attach **adhesives** prepd. therefrom)
IT Polyimides, preparation
(bismaleimide-based; allylated amide compds. and **die** attach **adhesives** prepd. therefrom)
IT Butadiene rubber, preparation
(maleated, reaction products with diallylamine; allylated amide compds. and **die** attach **adhesives** prepd. therefrom)
IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, bismaleimides with hydrogenated dimer diamine-p-nitrobenzoyl chloride adducts 111-34-2DP, Butyl **vinyl ether**, reaction products with dimer diol 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 122-04-3DP, p-Nitrobenzoyl chloride, reaction products with dimer diamine, hydrogenated, bismaleimides 814-68-6DP, Acryloyl chloride, reaction products with dimer diol **39340-26-6DP**, DDI 1410, reaction products with m-nitrobenzyl alc., hydrogenated, bismaleimides 76620-00-3P 102114-99-8P 126968-43-2DP, Versamine 552, reaction products with p-nitrobenzoyl chloride, hydrogenated, bismaleimides 158516-85-9DP, Pripol 2033, reaction products with Bu **vinyl ether** 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P 253662-10-1P 253662-32-7P, Azeloylbis(diallylamide)-Versalink P-650 copolymer (allylated amide compds. and **die** attach

- adhesives** prepd. therefrom)
- IT 55750-53-3P, 6-Maleimidocaproic acid 253661-99-3P 253662-00-9P
253662-09-8P
(allylated amide compds. and **die** attach
adhesives prepd. therefrom)
- IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic
acid 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride
124-02-7, Diallylamine 589-16-2, 4-Ethyl aniline 619-25-0
620-92-8, Bisphenol F 1585-90-6 2451-62-9,
Tris(epoxypropyl)isocyanurate **4098-71-9**,
5-Isocyanato-1-(isocyanatomethyl)-1, 3, 3-trimethylcyclohexane
7300-91-6 55750-53-3D, 6-Maleimidocaproic acid, reaction products
with dimer diol 85721-25-1
(allylated amide compds. and **die** attach
adhesives prepd. therefrom)
- IT 9003-17-2P
(butadiene rubber, maleated, reaction products with diallylamine;
allylated amide compds. and **die** attach
adhesives prepd. therefrom)
- IT 9003-18-3P
(nitrile rubber, amine-terminated, maleimides; allylated amide
compds. and **die** attach **adhesives** prepd.
therefrom)
- L52 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:12715 Document No. 132:79493 **Die** attach
adhesives for use in microelectronics. Herr, Donald;
Schultz, Rose Ann; Xu, Ping Yong (National Starch and Chemical
Investment Holding Corp., USA). Eur. Pat. Appl. EP 969065 A2
20000105, 44 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,
GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
(English). CODEN: EPXXDW. APPLICATION: EP 1999-112734 19990701.
PRIORITY: US 1998-91492 19980702; US 1999-336245 19990618.
- AB A curable **adhesive** compn. for use in bonding an electronic
component to a substrate comprises a maleimide compd. and a curing
initiator selected from the group consisting of a free-radical
initiator, a photoinitiator, and a combination of those.
- IT **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc.
derivs., reduced, maleimide derivs.
(**die** attach **adhesives** for use in
microelectronics)
- RN 39340-26-6 HCAPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)
- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- IT **4098-71-9**, 5-Isocyanato-1-(isocyanatomethyl)-1, 3,
3-trimethylcyclohexane **39340-26-6**, DDI 1410
(**die** attach **adhesives** for use in

microelectronics)
 RN 4098-71-9 HCAPLUS
 CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
 (9CI) (CA INDEX NAME)

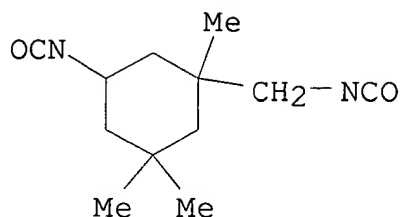


RN 39340-26-6 HCAPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
 ICS C08F290-06; C08F299-02; H05K003-38
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76
 ST maleimide **die** attach **adhesive** microelectronics
 IT Fatty acids, reactions
 (C18-unsatd., dimers and trimers, Empol 1024, reaction products
 with propargyl alc. and lauryl mercaptan; **die** attach
adhesives for use in microelectronics)
 IT Nitrile rubber, preparation
 (amine-terminated, Hycar ATBN 1300X42, maleimide derivs.;
die attach **adhesives** for use in
 microelectronics)
 IT **Adhesives**
 Semiconductor devices
 (**die** attach **adhesives** for use in
 microelectronics)
 IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and
 lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products
 with amino-terminated acrylonitrile-butadiene copolymer
 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and
 propargyl alc. **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc.
 derivs., reduced, maleimide derivs. 55750-53-3P, 6-Maleimidocaproic
 acid 76620-00-3P 158516-85-9DP, Pripol 2033, **divinyl**
ether derivs. 203193-13-9P 253661-94-8P 253661-95-9P
 253661-97-1P 253661-98-2P 253662-01-0P 253681-46-8P
 253681-47-9P
 (**die** attach **adhesives** for use in
 microelectronics)

- IT 253661-99-3P 253662-00-9P
(**die** attach **adhesives** for use in
microelectronics)
- IT 60-32-2, 6-Aminocaproic acid 111-34-2, Butyl **vinyl
ether** 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl
chloride 589-16-2, 4-Ethyl aniline 619-25-0 814-68-6, Acryloyl
chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate
4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1, 3,
3-trimethylcyclohexane **39340-26-6**, DDI 1410 43048-02-8
158516-85-9, Pripol 2033
(**die** attach **adhesives** for use in
microelectronics)
- IT 9003-18-3P
(nitrile rubber, amine-terminated, Hycar ATBN 1300X42, maleimide
derivs.; **die** attach **adhesives** for use in
microelectronics)
- L52 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:12709 Document No. 132:79317 Compositions for use in the
fabrication of components on printed circuit boards. Tong, Quinn
K.; Ma, Bodan; Xiao, Chaodong (National Starch and Chemical
Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969059 A2
20000105, 45 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,
GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
(English). CODEN: EPXXDW. APPLICATION: EP 1999-112720 19990701.
PRIORITY: US 1998-91490 19980702; US 1999-226324 19990618.
- AB In-situ-curable compns. for fabrication of reworkable elec. circuit
components and printed circuit board components contain .gtoreq.1
mono- or polyfunctional maleimide compds., .gtoreq.1 mono- or
polyfunctional vinyl compds. other than maleimide compds., or a
combination of maleimide and vinyl compds., a free-radical initiator
or photoinitiator, and, optionally, .gtoreq.1 filler. A typical
adhesive for bonding a Si **die** on a FR-4 laminate
contained Versalink P-650 (a bismaleimide prepd. from
polytetramethylene glycol di-p-aminobenzoate) 1.01,
cyclohexanedimethanol **divinyl ether** 0.19,
.alpha.,.alpha.-dimethoxy-.alpha.-phenylacetophenone 0.06, and
hydrophilic fused silica 3.78 g.
- IT **4098-71-9**, Isophorone **diisocyanate**
(compn. component precursor; in-situ-curable compns. for
fabrication of reworkable components on printed circuit boards)
- RN 4098-71-9 HCAPLUS
CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
(9CI) (CA INDEX NAME)

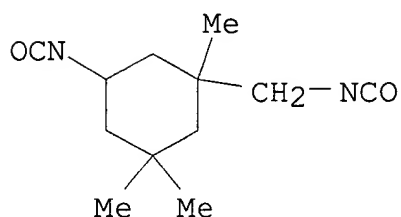


- IT **39340-26-6DP**, DDI 1410, reaction products with nitrobenzyl alc., maleimide derivs.
(compn. component; in-situ-curable compns. for fabrication of reworkable components on printed circuit boards)
- RN 39340-26-6 HCAPLUS
- CN DDI (isocyanate) (9CI) (CA INDEX NAME)
- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- IC ICM C09J004-00
- ICS C08F290-06; C08F299-02; H05K003-38
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 76
- ST reworkable printed circuit board component polyfunctional vinyl compd compn; cyclohexanedimethanol **divinyl ether** photocurable **die attach adhesive**; polyoxytetramethylene bismaleimide polyimide photocurable **die attach adhesive**; maleimide polyfunctional reworkable printed circuit board component
- IT **Adhesives**
(photocurable; in-situ-curable compns. for fabrication of reworkable components on printed circuit boards)
- IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
(polyimide-, bismaleimide-based; photocured **adhesive** for bonding silicon **die** to FR-4 laminates)
- IT Polyimides, preparation
Polyimides, preparation
(polyoxyalkylene-, bismaleimide-based; photocured **adhesive** for bonding silicon **die** to FR-4 laminates)
- IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 589-16-2, 4-Ethylaniline 619-25-0 1585-90-6, N-(2-Hydroxyethyl)maleimide 2451-62-9, Triglycidyl isocyanurate **4098-71-9**, Isophorone **diisocyanate** 7300-91-6, N-(4-Hydroxyphenyl)maleimide
(compn. component precursor; in-situ-curable compns. for fabrication of reworkable components on printed circuit boards)

- IT 107-19-7DP, Propargyl alcohol, reaction products with C36 fatty acid dimer and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with aminobenzamide of C36 fatty acid dimer diamines 111-34-2DP, Butyl **vinyl ether**, reaction products with C36 fatty dimer diol 112-55-0DP, Lauryl mercaptan, reaction products with C36 fatty acid dimer and lauryl mercaptan 122-04-3DP, p-Nitrobenzoyl chloride, reaction products with C36 fatty acid dimer diamine, maleimide derivs. 619-25-0DP, reaction products with C36 fatty **diisocyanate**, maleimide derivs. 814-68-6DP, Acryloyl chloride, reaction products with C36 fatty dimer diol **39340-26-6DP**, DDI 1410, reaction products with nitrobenzyl alc., maleimide derivs. 55750-53-3DP, esters with C36 fatty diol 76620-00-3P, N-(4-Ethylphenyl)maleimide 126968-43-2DP, Versamine 552, reaction products with nitrobenzoyl chloride, maleimide derivs. 158516-85-9DP, Pripol 2033, reaction products with Bu **vinyl ether** 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P
(compn. component; in-situ-curable compns. for fabrication of reworkable components on printed circuit boards)
- IT 54667-43-5DP, Versalink 650, maleimide derivs., polymers with cyclohexanediol **divinyl ether**
(compn. component; photocured **adhesive** for bonding silicon **die** to FR-4 laminates)
- IT 253779-81-6P
(photocured **adhesive** for bonding silicon **die** to FR-4 laminates)
- L52 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:12692 Document No. 132:79316 Circuit component composition comprising allylated amide compounds. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969028 A2 20000105, 52 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112742 19990701. PRIORITY: US 1998-91505 19980702; US 1999-336080 19990618.
- AB Reworkable circuit components are prep'd. from compns. contg. allylated amide compds., a curing initiator, optionally fillers and additives, and optionally one or more mono- or polyfunctional vinyl compds. The compns. are cured in situ. A typical **die** -attach **adhesive** contained N,N-diallylazelaamide 0.521, Versalink P-650 (bismaleimide) 1.678, tert-Bu 2-ethylhexanoate 0.043, Sartomer 633 (metal diacrylate) 0.023, .gamma.-methacryloyloxypopyltrimethoxysilane 0.024, and Ag powder 5.148 g.
- IT **4098-71-9**, Isophorone **diisocyanate**
(allylated amide-reactive comp'd. precursor; in-situ-curable compns. contg. allylated amide compds. for reworkable elec.

circuit components)

RN 4098-71-9 HCAPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
(9CI) (CA INDEX NAME)IT 39340-26-6DP, DDI 1410, reaction products with nitrobenzyl
alc., maleimide derivs.(allylated amide-reactive compd.; in-situ-curable compns. contg.
allylated amide compds. for reworkable elec. circuit components)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C08F290-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

ST reworkable elec circuit component in situ cured; **die**
attach **adhesive** diallylazelaamide bismaleimide in situ
prepd copolymer; allylated amide elec circuit component compn in
situ curableIT **Adhesives**(conductive, **die**-attach; in-situ-curable compns. contg.

allylated amide compds. for reworkable elec. circuit components)

IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic
acid 108-31-6, 2,5-Furandione, reactions 112-47-0,
1,10-Decanediol 589-16-2, 4-Ethylaniline 619-25-0 1585-90-6
2451-62-9, Triglycidyl isocyanurate 4098-71-9, Isophorone
diisocyanate 7300-91-6(allylated amide-reactive compd. precursor; in-situ-curable
compns. contg. allylated amide compds. for reworkable elec.
circuit components)IT 107-19-7DP, Propargyl alcohol, reaction products with C36 fatty acid
dimers and lauryl mercaptan 111-34-2DP, Butyl **vinyl**
ether, reaction products with C36 fatty acid dimer diol
112-55-0DP, Lauryl mercaptan, reaction products with C36 fatty acid
dimers and propargyl alc. 122-04-3DP, p-Nitrobenzoyl chloride,
reaction products with C36 fatty acid dimer diamine, maleimide
derivs. 619-25-0DP, reaction products with C36 fatty acid dimer

diisocyanate, maleimide derivs. 814-68-6DP, Acryloyl chloride, esters with C36 fatty acid dimer diol **39340-26-6DP**, DDI 1410, reaction products with nitrobenzyl alc., maleimide derivs. 55750-53-3DP, esters with C36 fatty acid dimers 55750-53-3P 76620-00-3P, N-(4-Ethylphenyl)maleimide 126968-43-2DP, Versamine 552, reaction products with nitrobenzoyl chloride, maleimide derivs. 158516-85-9DP, Pripol 2033, reaction products with Bu **vinyl ether** 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P

(allylated amide-reactive compd.; in-situ-curable compns. contg. allylated amide compds. for reworkable elec. circuit components)

IT 253675-69-3P

(in-situ-cured elec. conductive **die-attach adhesive**)

L52 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

1997:164553 Document No. 126:158848 Active energy beam-curable coating compositions containing hydroxy-substituted fluoroolefin polymers, acrylic monomers, and polyisocyanates. Miura, Ryuichi; Kodama, Shunichi (Asahi Glass Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08319455 A2 19961203 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-128580 19950526.

AB Title compns. giving weather-resistant cured films contain reaction products prepd. by linking OH- and F(.gtoreq.5%)-contg. fluoroolefin polymers with OH-contg. (meth)acrylate monomers through **diisocyanates** and/or triisocyanates having NCO groups with different reactivity. Thus, after 12 parts 2-hydroxyethyl acrylate was added dropwise into 22 parts LDI (2,6-**diisocyanatocaproic** acid Me ester) at 40.degree. for 5 h with stirring under dried N and then treated with a soln. of 186 parts 50:17:5:8 (mol) chlorotrifluoroethylene-cyclohexyl vinyl ether-Et vinyl ether-hydroxybutyl vinyl ether copolymer (OH value 40) in 220 parts toluene (I) at 60.degree. for 5 h under stirring, 220 parts a 1:1 mixt. of 1,6-hexanediol diacrylate and trimethylolpropane triacrylate was added and I was vacuum distd. off to obtain a coating compn., in 100 parts of which 3 parts Darocure 1173 was dispersed, applied to an Al plate at a 0.01-mm thickness, and cured by UV irradiation for 20 s to give a film showing gloss retention .gtoreq.80% after 3000 h in the sunshine weatherometer test.

IT **186459-76-7P 186459-77-8P 186708-26-9P 186708-27-0P 186776-63-6P**

(active energy-curable coatings contg. hydroxy-substituted fluoroolefin polymers, hydroxy-substituted (meth)acrylic monomers, and polyisocyanates)

RN 186459-76-7 HCAPLUS

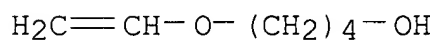
CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, polymer with

chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol,
 (ethenyloxy)cyclohexane, ethoxyethene, 2-ethyl-2-[[(1-oxo-2-
 propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,6-hexanediyl
 di-2-propenoate and 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX
 NAME)

CM 1

CRN 17832-28-9

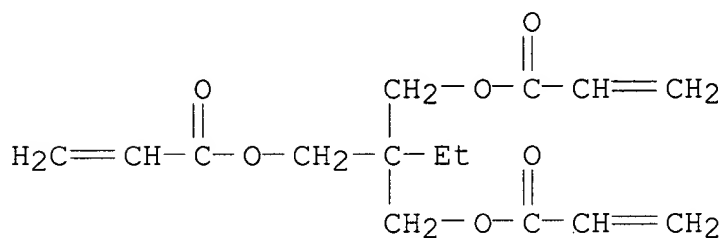
CMF C6 H12 O2



CM 2

CRN 15625-89-5

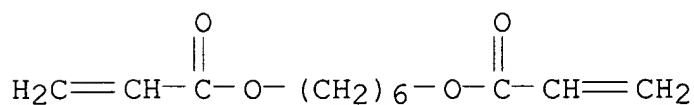
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CM 3

CRN 13048-33-4

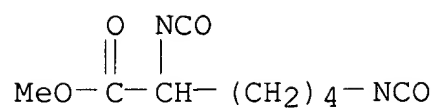
CMF C12 H18 O4



CM 4

CRN 4460-02-0

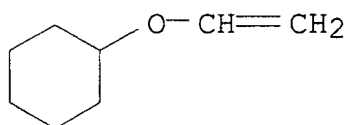
CMF C9 H12 N2 O4



CM 5

CRN 2182-55-0

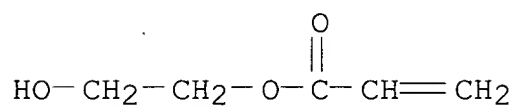
CMF C8 H14 O



CM 6

CRN 818-61-1

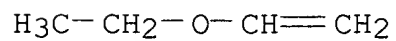
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CM 7

CRN 109-92-2

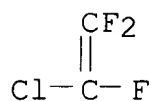
CMF C4 H8 O



CM 8

CRN 79-38-9

CMF C2 Cl F3



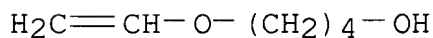
RN 186459-77-8 HCAPLUS

CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,6-hexanediyl di-2-propenoate and 2-hydroxypropyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

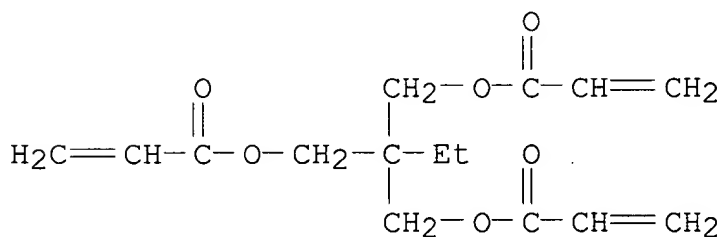
CMF C6 H12 O2



CM 2

CRN 15625-89-5

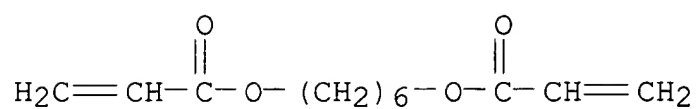
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CM 3

CRN 13048-33-4

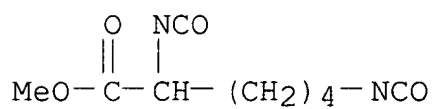
CMF C12 H18 O4



CM 4

CRN 4460-02-0

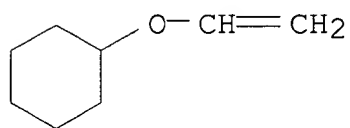
CMF C9 H12 N2 O4



CM 5

CRN 2182-55-0

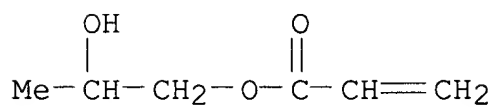
CMF C8 H14 O



CM 6

CRN 999-61-1

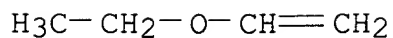
CMF C6 H10 O3



CM 7

CRN 109-92-2

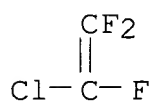
CMF C4 H8 O



CM 8

CRN 79-38-9

CMF C2 C1 F3



RN 186708-26-9 HCAPLUS

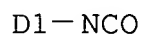
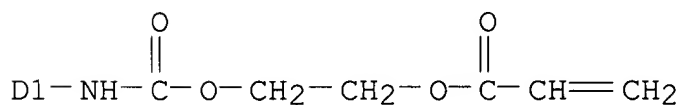
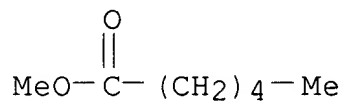
CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, adduct with 2-hydroxyethyl 2-methyl-2-propenoate (1:1), polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 186676-57-3

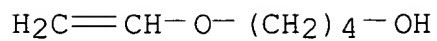
CMF C14 H20 N2 O7

CCI IDS



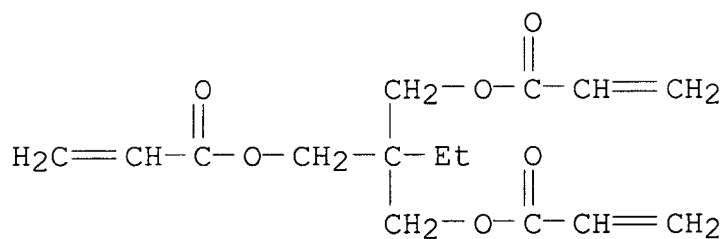
CM 2

CRN 17832-28-9
CMF C6 H12 O2



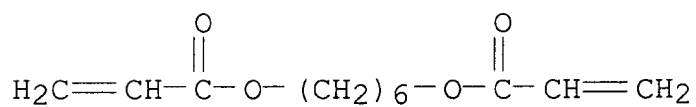
CM 3

CRN 15625-89-5
CMF C15 H20 O6



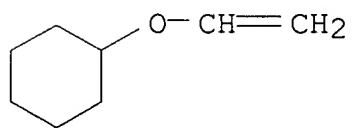
CM 4

CRN 13048-33-4
CMF C12 H18 O4



CM 5

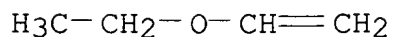
CRN 2182-55-0
CMF C8 H14 O



CM 6

CRN 109-92-2

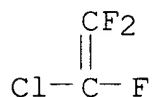
CMF C4 H8 O



CM 7

CRN 79-38-9

CMF C2 Cl F3



RN 186708-27-0 HCAPLUS

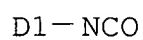
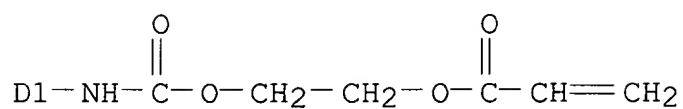
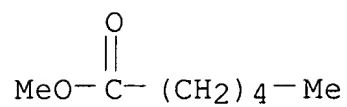
CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, adduct with 2-hydroxyethyl 2-methyl-2-propenoate (1:1), polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, [(ethenyloxy)methyl]oxirane, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 186676-57-3

CMF C14 H20 N2 O7

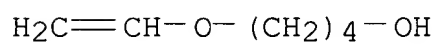
CCI IDS



CM 2

CRN 17832-28-9

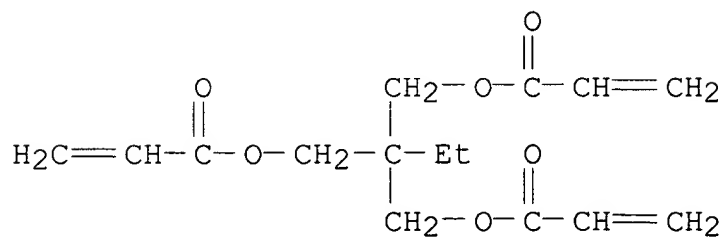
CMF C6 H12 O2



CM 3

CRN 15625-89-5

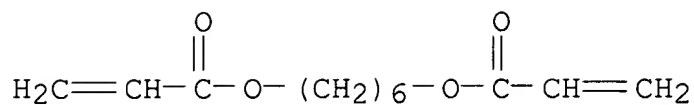
CMF C15 H20 O6



CM 4

CRN 13048-33-4

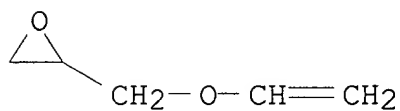
CMF C12 H18 O4



CM 5

CRN 3678-15-7

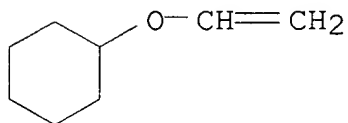
CMF C5 H8 O2



CM 6

CRN 2182-55-0

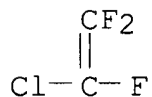
CMF C8 H14 O



CM 7

CRN 79-38-9

CMF C2 Cl F3



RN 186776-63-6 HCAPLUS

CN Hexanoic acid, 2(or 6)-isocyanato-6(or 2)-[[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]amino]-, methyl ester, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, 3-(ethenyloxy)-1-propanamine, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl

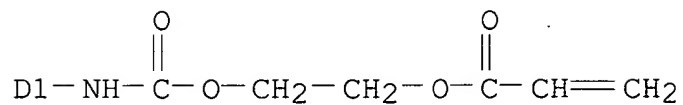
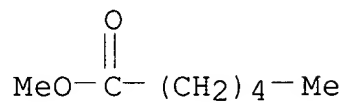
di-2-propenoate and 1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 186676-57-3

CMF C14 H20 N2 O7

CCI IDS

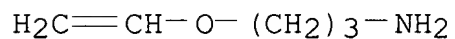


D1-NCO

CM 2

CRN 66415-55-2

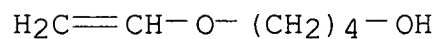
CMF C5 H11 N O



CM 3

CRN 17832-28-9

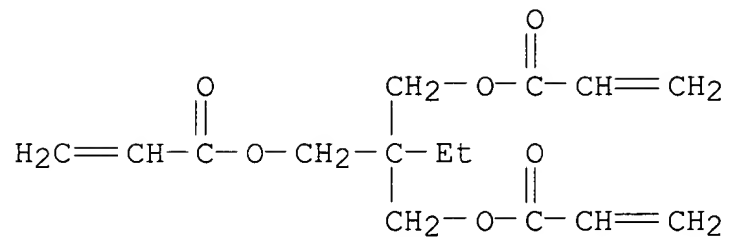
CMF C6 H12 O2



CM 4

CRN 15625-89-5

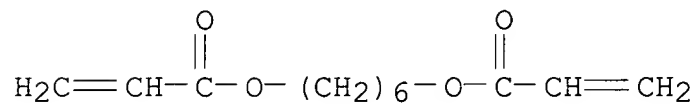
CMF C15 H20 06



CM 5

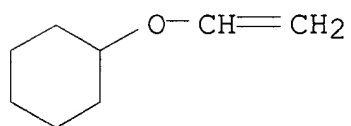
CRN 13048-33-4

CMF C12 H18 O4



CM 6

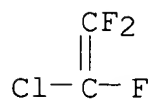
CRN 2182-55-0

CMFC8H14O

CM 7

CRN 79-38-9

CMF C2 C1 F3



IT 186708-28-1P
(coatings; active energy-curable coatings contg.
hydroxy-substituted fluoroolefin polymers, hydroxy-substituted
(meth)acrylic monomers, and polyisocyanates)

RN 186708-28-1 HCAPLUS

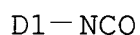
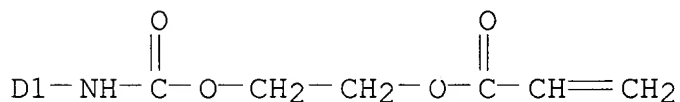
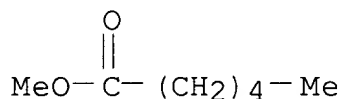
CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, adduct with
2-hydroxyethyl 2-methyl-2-propenoate (1:1), chlorotrifluoroethene,
4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene,
2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
di-2-propenoate, 1,6-hexanediyl di-2-propenoate and Ripoxy R 820
(9CI) (CA INDEX NAME)

CM 1

CRN 186676-57-3

CMF C14 H20 N2 O7

CCI IDS



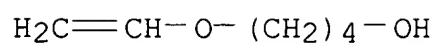
CM 2

CRN 87004-06-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

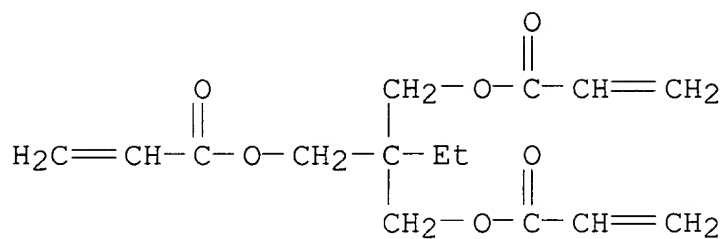
CRN 17832-28-9
CMF C6 H12 O2



CM 4

CRN 15625-89-5

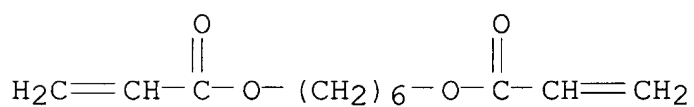
CMF C15 H20 O6



CM 5

CRN 13048-33-4

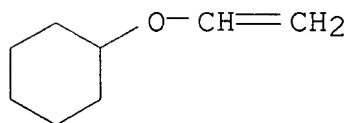
CMF C12 H18 O4



CM 6

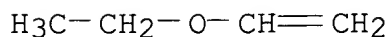
CRN 2182-55-0

CMF C8 H14 O



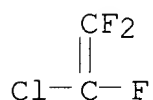
CM 7

CRN 109-92-2
CMF C4 H8 O



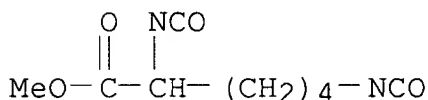
CM 8

CRN 79-38-9
CMF C2 C1 F3

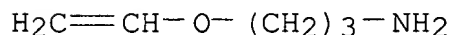


- IC ICM C09D175-04
ICS C09D175-04; C09D127-12; C08G018-65; C08G018-67; C08G018-73
CC 42-10 (Coatings, Inks, and Related Products)
IT 15396-00-6DP, KBM 9007, reaction products with
chlorotrifluoroethylene-cyclohexyl vinyl ether-Et vinyl
ether-hydroxybutyl vinyl ether copolymer and polyisocyanates and
acrylic monomers 88795-12-4DP, Chlorotrifluoroethylene-cyclohexyl
vinyl ether-ethyl vinyl ether-hydroxybutyl vinyl ether copolymer,
reaction products with isocyanatopropyltrimethoxysilane and
polyisocyanates and (meth)acrylic monomers **186459-76-7P**
186459-77-8P 186676-73-3DP, reaction products with
isocyanates and hydroxy-substituted fluoropolymers
186708-26-9P 186708-27-0P 186713-03-1P
186776-63-6P 186843-52-7P
(active energy-curable coatings contg. hydroxy-substituted
fluoroolefin polymers, hydroxy-substituted (meth)acrylic
monomers, and polyisocyanates)
IT **186708-28-1P**
(coatings; active energy-curable coatings contg.
hydroxy-substituted fluoroolefin polymers, hydroxy-substituted
(meth)acrylic monomers, and polyisocyanates)
- L52 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1997:131878 Document No. 126:132734 One-component air-curable coating
compositions containing fluoroolefin polymers, polyisocyanates, and
isocyanate-reactive compounds. Miura, Ryuichi; Kodama, Shunichi
(Asahi Glass Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08319454 A2
19961203 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
1995-128579 19950526.

- AB Title compns. giving solvent- and weather-resistant cured films contain (a) reaction products prepd. by linking OH- and F(.gtoreq.5%)-contg. fluoroolefin polymers with compds. having a conjugated double bond and groups reacting with isocyanates through **diisocyanates** and/or triisocyanates having NCO groups with different reactivity and (b) solvents. Thus, 100 parts Hy-Diene (fatty acids) was added dropwise into 80 parts LDI (2,6-**diisocyanate** caproic acid Me ester) at 60.degree. for 5 h with stirring under dried N and then treated with a soln. of 50:40:2:8 (mol) chlorotrifluoroethylene-cyclohexylvinyl ether-Et vinyl ether-hydroxybutyl vinyl ether copolymer (OH value 40) in 300 parts mineral turpentine at 60.degree. for 5 h with stirring to obtain a coating compn., in 100 parts of which TiO₂ pigment 30, light stabilizers 1.5, and Co naphthenate 0.05 part were dispersed, applied to an Al plate at a 0.02-mm thickness, and kept for 1 wk to give a cured film showing no bite on being rubbed 50 times with a xylene-soaked gauze and gloss retention .gtoreq.80% after 3000 h in the sunshine weatherometer test.
- IT **4460-02-0DP**, LDI, reaction products with linoleic acid and hydroxy-contg. fluoropolymers **186425-60-5DP**, reaction products with polyisocyanates and isocyanate-reactive compds. (one-liq. air-curable coatings contg. hydroxy-substituted fluoroolefin polymers, polyisocyanates, and isocyanate-reactive compds.)
- RN 4460-02-0 HCAPLUS
- CN Hexanoic acid, 2,6-diisocyanato-, methyl ester (7CI, 8CI, 9CI) (CA INDEX NAME)



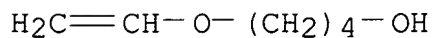
- RN 186425-60-5 HCAPLUS
- CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene, (ethenyloxy)cyclohexane and 3-(ethenyloxy)-1-propanamine (9CI) (CA INDEX NAME)
- CM 1
- CRN 66415-55-2
- CMF C5 H11 N O



CM 2

CRN 17832-28-9

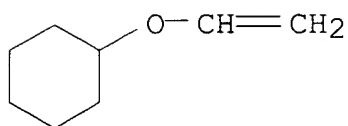
CMF C6 H12 O2



CM 3

CRN 2182-55-0

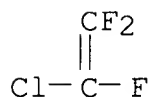
CMF C8 H14 O



CM 4

CRN 79-38-9

CMF C2 Cl F3



IC ICM C09D175-04

ICS C09D175-04; C09D127-12; C08G018-73

CC 42-10 (Coatings, Inks, and Related Products)

IT 183906-32-3DP, 2,6-Diisocyanatecaproic acid

2-isocyanateethyl ester, reaction products with unsatd. fatty acid
and hydroxy-substituted fluoroolefin polymers

(LTI (isocyanate); one-liq. air-curable coatings contg.

hydroxy-substituted fluoroolefin polymers, polyisocyanates, and
isocyanate-reactive compds.)IT 60-33-3DP, 9,12-Octadecadienoic acid (Z,Z)-, reaction products with
LDI and hydroxy-contg. fluoropolymers **4460-02-ODP**, LDI,
reaction products with linoleic acid and hydroxy-contg.
fluoropolymers **4460-02-ODP**, LDI, reaction products with

unsatd. fatty acid and hydroxy-substituted fluoroolefin polymers 15396-00-6DP, KBM 9007, reaction products with hydroxy-substituted fluoroolefin polymers, polyisocyanates, and isocyanate-reactive compds. 88795-12-4DP, Chlorotrifluoroethylene-cyclohexyl vinyl ether-ethyl vinyl ether-hydroxybutyl vinyl ether copolymer, reaction products with polyisocyanates and isocyanate-reactive compds. 112462-23-4DP, reaction products with polyisocyanates and isocyanate-reactive compds. 161605-33-0DP, reaction products with polyisocyanates and isocyanate-reactive compds.

186425-60-5DP, reaction products with polyisocyanates and isocyanate-reactive compds.

(one-liq. air-curable coatings contg. hydroxy-substituted fluoroolefin polymers, polyisocyanates, and isocyanate-reactive compds.)

L52 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

1990:487988 Document No. 113:87988 Fluorescent lamp. Takayanagi, Takashi; Kimura, Hiroshi; Miyazaki, Nobuyuki (Asahi Glass Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02040853 A2 19900209 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-188281 19880729.

AB A shatter-proof fluorescent lamp comprises a coating film formed on the outside of the lamp tube, wherein the coating film is composed of a polyfunctional organosilicon compd. having an isocyanate group directly bonded to Si and a sol. fluorocopolymer contg. a moiety capable of curing, the F content based on the fluoroolefin units in the fluorocopolymer being .gtoreq.10 wt.%.

IT **117455-09-1**

(protective coating compn. contg., for shatter-proof fluorescent lamps)

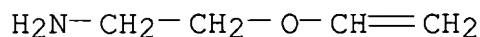
RN 117455-09-1 HCAPLUS

CN Silane, triisocyanatomethyl-, polymer with chlorotrifluoroethene, (ethenyloxy)cyclohexane, 2-(ethenyloxy)ethanamine and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 7336-29-0

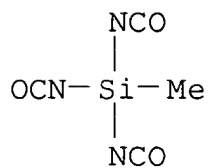
CMF C4 H9 N O



CM 2

CRN 5587-61-1

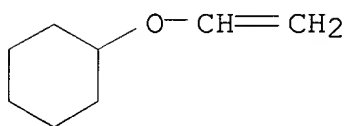
CMF C4 H3 N3 O3 Si



CM 3

CRN 2182-55-0

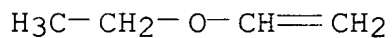
CMF C8 H14 O



CM 4

CRN 109-92-2

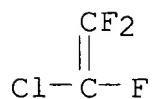
CMF C4 H8 O



CM 5

CRN 79-38-9

CMF C2 Cl F3



IC ICM H01J061-35

ICS C09D175-04; H01J061-50

CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related

Properties)
IT 117455-07-9 117455-08-0 117455-09-1 128725-06-4
128725-07-5
(protective coating compn. contg., for shatter-proof fluorescent
lamps)

L52 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1988:612502 Document No. 109:212502 Fluoropolymer coating composition
and coated product. Takayanagi, Takashi; Munekata, Seiji; Miyazaki,
Nobuyuki; Moriwaki, Ken (Asahi Glass Co., Ltd., Japan). Eur. Pat.
Appl. EP 271876 A2 19880622, 12 pp. DESIGNATED STATES: R: DE, FR,
GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1987-118578
19871215. PRIORITY: JP 1986-301558 19861219.

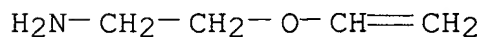
AB A one-part heat- and weather-resistant compn. for applications to
steel or glass comprises a F-contg. polymer having curable reactive
sites and an organosilicone compd. crosslinker having .gtoreq.1 NCO
group bonded to a Si atom. A PhMe compn. contg. 100 parts
52.5:19.5:26.3:11.7 chlorotrifluoroethylene-cyclohexyl vinyl
ether-Et vinyl ether-hydroxybutyl vinyl ether polymer (sp. viscosity
0.2 dL/g at 30.degree. in THF) and 15 parts methylsilyl
triisocyanate (I) was applied to glass and dried at room temp. for 1
day to give a test piece having a 25-.mu.m coating and showing
yellow index (180.degree., 8 h) 5, crosscut adhesion 100/100, and
gloss retention (4000-h Sunshine weatherometer) 98%, vs. 60, 0/100,
and 92, resp., using Coronate EH instead of I.

IT 117455-09-1 117557-32-1
(coatings, heat- and water-resistant, with good adhesion to glass
or stainless steel)

RN 117455-09-1 HCAPLUS
CN Silane, triisocyanatomethyl-, polymer with chlorotrifluoroethene,
(ethenyloxy)cyclohexane, 2-(ethenyloxy)ethanamine and ethoxyethene
(9CI) (CA INDEX NAME)

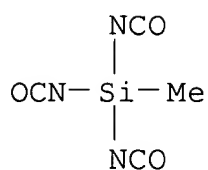
CM 1

CRN 7336-29-0
CMF C4 H9 N O



CM 2

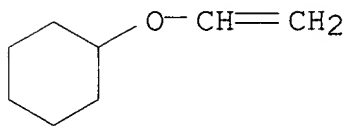
CRN 5587-61-1
CMF C4 H3 N3 O3 Si



CM 3

CRN 2182-55-0

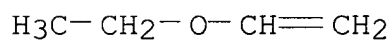
CMF C8 H14 O



CM 4

CRN 109-92-2

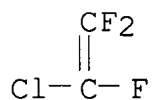
CMF C4 H8 O



CM 5

CRN 79-38-9

CMF C2 Cl F3



RN 117557-32-1 HCAPLUS

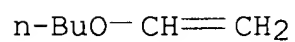
CN Butanol, (ethenyloxy)-, polymer with chlorotrifluoroethene,
 diisocyanatodimethylsilane, (ethenyloxy)cyclohexane and ethoxyethene
 (9CI) (CA INDEX NAME)

CM 1

CRN 42978-84-7

CMF C6 H12 O2

CCI IDS

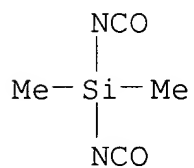


D1-OH

CM 2

CRN 5587-62-2

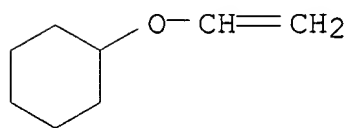
CMF C4 H6 N2 O2 Si



CM 3

CRN 2182-55-0

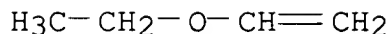
CMF C8 H14 O



CM 4

CRN 109-92-2

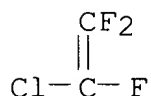
CMF C4 H8 O



CM 5

CRN 79-38-9

CMF C2 C1 F3



IC ICM C09D003-78

ICS C08K005-54; C08L027-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 57

IT 117455-07-9 117455-08-0 **117455-09-1** 117455-10-4117455-11-5 117536-71-7 **117557-32-1** 117557-33-2

117557-34-3 117557-35-4 117558-15-3

(coatings, heat- and water-resistant, with good adhesion to glass or stainless steel)

L52 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

1985:222276 Document No. 102:222276 Polyurethanes. (Sanyo Chemical Industries Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60026022 A2

19850208 Showa, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP

1983-133213 19830720.

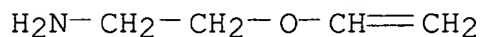
AB Polyurethanes contg. vinyl groups and hydrolyzable silyl groups are prepd. and hardened to form coatings. Thus, 0.2 mol isophorone **diisocyanate**, 0.05 g dibutyltin dilaurate (I), and 60 mL xylene were heated to 80-90.degree., mixed with 0.13 mol polypropylene glycol during 1 h, heated 9 h at 80-90.degree., mixed with 0.02 mol 2-hydroxyethyl methacrylate and 0.12 mol .gamma.-aminopropyltrimethoxysilane, heated 4 h at the same temp., evacuated in vacuo to remove the solvent, mixed (100 parts resin) with 2 parts I, and coated on Al to prep. a coating having tack-free time 20 min, hardening time 48 h, Shore C hardness 82, and tensile strength 3.2 kg/cm², compared with 70, 48, 75, and 1.3, resp., for a coating prepd. from Bu methacrylate-.gamma.-methacryloyloxypropyltrimethoxysilane copolymer.

IT **7336-29-0D**, reaction products with hexamethylene **diisocyanate**-polycaprolactone copolymer and mercaptopropyltrimethoxysilane **39323-37-0D**, reaction products with aminopropyltrimethoxysilane and hydroxyethyl methacrylate **42458-50-4D**, reaction products with

aminoethyl vinyl ether and mercaptopropyltrimethoxysilane
(coatings)

RN 7336-29-0 HCAPLUS

CN Ethanamine, 2-(ethenyloxy)- (9CI) (CA INDEX NAME)



RN 39323-37-0 HCAPLUS

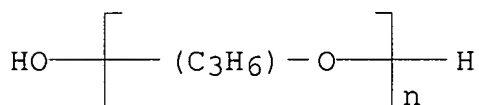
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-,
polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-
trimethylcyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 25322-69-4

CMF (C3 H6 O)_n H2 O

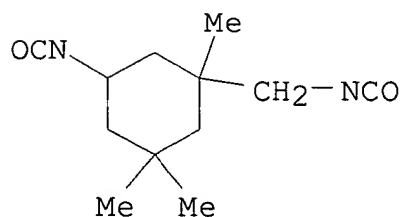
CCI IDS, PMS



CM 2

CRN 4098-71-9

CMF C12 H18 N2 O2



RN 42458-50-4 HCAPLUS

CN 2-Oxepanone, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX
NAME)

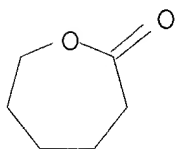
CM 1

CRN 822-06-0
CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 2

CRN 502-44-3
CMF C6 H10 O2

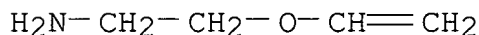


IC ICM C08G018-67
CC 42-10 (Coatings, Inks, and Related Products)
IT 868-77-9D, reaction products with aminopropyltrimethoxysilane and isophorone **diisocyanate**-polypropylene glycol copolymer
4420-74-0D, reaction products with aminoethyl vinyl ether and hexamethylene **diisocyanate**-polycaprolactone copolymer
7336-29-0D, reaction products with hexamethylene **diisocyanate**-polycaprolactone copolymer and mercaptopropyltrimethoxysilane 13822-56-5D, reaction products with hydroxyethyl methacrylate and isophorone **diisocyanate**-polypropylene glycol copolymer 39323-37-0D, reaction products with aminopropyltrimethoxysilane and hydroxyethyl methacrylate 42458-50-4D, reaction products with aminoethyl vinyl ether and mercaptopropyltrimethoxysilane (coatings)

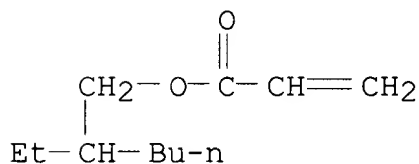
L52 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1969:451337 Document No. 71:51337 Stable dispersions of synthetic polymers in organic liquids. Milne, David G. (Du Pont de Nemours, E. I., and Co.). Ger. Offen. DE 1803384 19690703, 23 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1968-1803384 19681016.
AB Stable vinyl or halogen-contg. polymer dispersions are prepd. by the addn. of sol. acrylate polymers. Thus, 0.51 part of 95:5 (wt.) Me methacrylate-3'-[.beta.-(methacryloyloxy)ethyl]spiro[cyclohexane-1,2'-oxazolidine]copolymer, prepd. with azobisisobutyronitrile, was mixed with 9.9 parts of an 85:15 (molar) tetrafluoroethylene-hexafluoropropylene copolymer and 30.51 parts iso-BuCOMe. The

dispersion was added to a soln. of 9.88 parts of a poly(amide-imide) resin in 47.6 parts N-methylpyrrolidinone, and subsequently 2 parts TiO₂ was added to give a sprayable coating for Al foil. Other comonomers similarly used were methacrylic acid, 2-ethylhexyl acrylate, aminoethyl vinyl ether, hydroxyethyl methacrylate, bis(diisocyanatoethyl) fumarate, and acrylonitrile.

IT 26780-25-6
 (coatings of methacrylic acid-methyl methacrylate polymer and, on aluminum)
 RN 26780-25-6 HCAPLUS
 CN Acrylic acid, 2-ethylhexyl ester, polymer with 2-(vinylloxy)ethylamine (8CI) (CA INDEX NAME)
 CM 1
 CRN 7336-29-0
 CMF C4 H9 N O



CM 2
 CRN 103-11-7
 CMF C11 H20 O2



IC C08F; B01F
 CC 42 (Coatings, Inks, and Related Products)
 IT 26780-25-6
 (coatings of methacrylic acid-methyl methacrylate polymer and, on aluminum)

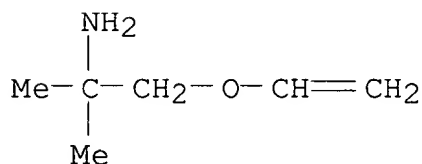
L52 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 1959:34394 Document No. 53:34394 Original Reference No. 53:6086b-e
 Aminoalkyl vinyl ethers. Watanabe, Warren H.; Melamed, Sidney (Rohm & Haas Co.). US 2845407 19580729 (Unavailable). APPLICATION: US .
 AB Vinyl ethers contg. amino groups attached to tertiary C atoms are not subject to cyclization and are obtained by vinylation of the

amino alc. Thus, CH.tplbond.CH was added to 44 g. Na in 1800 g. HOCH₂CMe₂NH₂ at 100-130.degree. and 3-500 lb./sq. in. gage. After 1 hr. and 16 min. distn. gave 84% CH₂:CHOCH₂CMe₂NH₂ (I), b120 70.degree., n_{20D} 1.4293. Similarly prepd. were: CH₂:CHOCH₂CH₂CHMe(CH₂)₃CMe₂NH₂, b10 113.degree., n_{20D} 1.4495; CH₂:CHOCH₂CMeBuNH₂; CH₂:CHOCH₂CMe₂NHCH₂CHMe₂; CH₂:CHOCH₂CMe₂NHCH₂C17H₃₅; CH₂:CHOCH₂CMe₂NHCH₂CHEt(CH₂)₃Me (II), CH₂:CHOCH₂CH₂NHCMe₃ (III), b43 76.degree., n_{20D} 1.4308; CH₂:CHOCH₂CH₂NHCMe₂CH₂CMe₃ (IV), b20 109.degree., n_{20D} 1.4478. Compds. are useful as fungicides, insecticides, and gas-fade inhibitors for acetate fibers. Polymerization of 20 g. I and 3 g. (NCCMe₂)₂N₂ (V) at 75.degree. for 16 hrs. gave a toxic oil which improves dye receptivity of polyacrylonitrile, and which reacted with **diisocyanates** (VI) to give a resin useful for ion exchange. The polymer of II is a corrosion inhibitor for lubricants, and reacts with EtNCO to yield poly(N-ethylurea). A copolymer of 23 g. I and 80 g. CH₂:CMeCO₂Me was partially sol. in MeOH and gelled with VI. Heating CH₂:CHOC₂H₄NH₂ with NH₂CONH₂ at 120-60.degree. gave (CH₂:CHOC₂H₄NH)₂CO which copolymerized with I to give a solid, useful as a nion-exchange resin. EtNCO and III gave CH₂:CHOC₂H₄N(Bu-tert)CONH₂. IV and BuNCO gave the urea. III and IV did not react with esters.

IT 86241-96-5, Ethylamine, 1,1-dimethyl-2-vinyloxy-
98956-71-9, Pentylamine, 1-methyl-1-(vinyloxymethyl)-
(prepn. of)

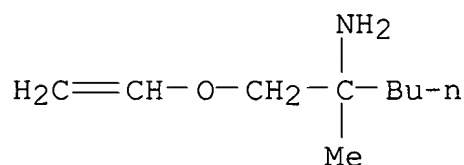
RN 86241-96-5 HCAPLUS

CN 2-Propanamine, 1-(ethenyloxy)-2-methyl- (9CI) (CA INDEX NAME)



RN 98956-71-9 HCAPLUS

CN Pentylamine, 1-methyl-1-(vinyloxymethyl)- (6CI) (CA INDEX NAME)



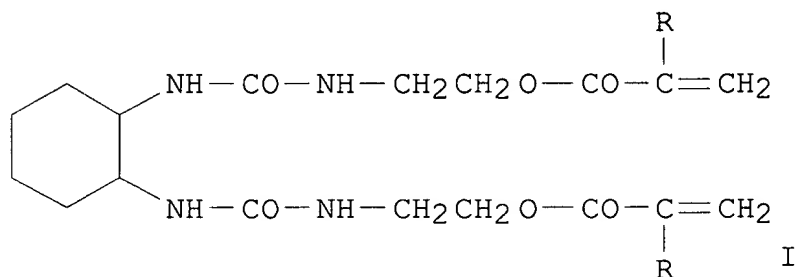
CC 10B (Organic Chemistry: Aliphatic Compounds)

IT 85997-10-0, Diethylamine, 1,1-dimethyl-2'-vinyl- 86047-45-2,
 Urea, 1,3-bis(2-vinyl- 86218-62-4, Heptylamine,
 1,1,5-trimethyl-7-vinyl- 86241-96-5, Ethylamine,
 1,1-dimethyl-2-vinyl- 86375-55-5, Butylamine,
 1,1,3,3-tetramethyl-N-(2-vinyl- 98956-71-9,
 Pentylamine, 1-methyl-1-(vinyl- 99994-00-0, Urea,
 1-tert-butyl-3-ethyl-1-(2-vinyl- 100887-37-4, Hexylamine,
 N-(1,1-dimethyl-2-vinyl- 103212-79-9,
 Octadecylamine, N-(1,1-dimethyl-2-vinyl- 103645-67-6,
 Propylamine, N-(1,1-dimethyl-2-vinyl-
 (prepn. of)

=> d 153 1-20 cbib abs hitstr hitind

L53 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 2003:353887 Document No. 138:356256 Gel electrolyte, its manufacture,
 and its use. Uetani, Yoshihiro; Kii, Keisuke; Satsuma, Michio
 (Nitto Denko Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2003132952 A2
 20030509, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
 2001-329063 20011026.

GI



AB The electrolyte contains an electrolyte salt, a solvent for the
 salt, and a polymer matrix I (R = H or Me group); where the matrix
 comprises a crosslinked polymer obtained by polymg. a bifunctional
 (meth)acrylate. The electrolyte is manufd. by polymg. the
 (meth)acrylate with heating or irradiating by active radiation to
 from the crosslinked polymer, and forming a gel by retaining the
 salt and the solvent in the matrix. The electrolyte is used for
 batteries and capacitors, esp. secondary Li batteries.

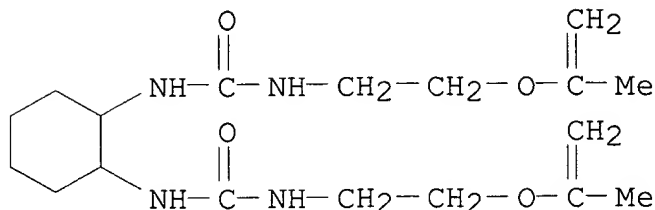
IT 519057-01-3

(manuf. of gel electrolytes contg. polymethacrylate compds. for
 secondary lithium batteries and double layer capacitors)

RN 519057-01-3 HCAPLUS

CN Urea, N,N''-1,2-cyclohexanediylbis[N'-[2-[(1-

methylethenyl)oxy]ethyl]- (9CI) (CA INDEX NAME)



IC ICM H01M010-40
 ICS C08F020-36; H01B001-06; H01B013-00; H01G009-02; H01G009-032
 CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
 IT 96-49-1, Ethylene carbonate 623-53-0, Ethyl methyl carbonate
 21324-40-3, Lithium hexafluorophosphate **519057-01-3**
 (manuf. of gel electrolytes contg. polymethacrylate compds. for
 secondary lithium batteries and double layer capacitors)

L53 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 2000:12716 Document No. 132:79494 Package encapsulants prepared from
 allylated amide compounds. Schultz, Rose Ann; Herr, Donald; Xiao,
 Chaodong (National Starch and Chemical Investment Holding
 Corporation, USA). Eur. Pat. Appl. EP 969066 A2 20000105, 51 pp.
 DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI,
 LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN:
 EPXXDW. APPLICATION: EP 1999-112741 19990701. PRIORITY: US
 1998-91508 19980702; US 1999-336323 19990618.

AB A package encapsulant comprises an allylated amide compd.; a curing
 initiator selected from the group consisting of a free-radical
 initiator, a photoinitiator, and a combination of those; optionally,
 one or more fillers; optionally, one or more **adhesion**
 promoters.

IT **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced,
 maleimide derivs.
 (package encapsulants prepd. from allylated amide compds.)

RN 39340-26-6 HCAPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **39340-26-6**, DDI 1410
 (package encapsulants prepd. from allylated amide compds.)

RN 39340-26-6 HCAPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00

ICS C08F290-06; C08F299-02; H05K003-38
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amino-terminated acrylonitrile-butadiene copolymer 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 124-02-7DP, Diallylamine, reaction products with maleated butadiene rubber **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs. 76620-00-3P 102114-99-8P 126968-43-2DP, Versamine 552, p-nitrobenzamide derivs., reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, divinyl derivs. 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P 253662-10-1P 253662-31-6P 253662-32-7P 253662-33-8P 253681-46-8P 253681-47-9P
(package encapsulants prepd. from allylated amide compds.)
IT 56-81-5, 1,2,3-Propanetriol, reactions 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl **vinyl ether** 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 124-02-7, Diallylamine 589-16-2, 4-Ethyl aniline 619-25-0 620-92-8, Bisphenol F 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6 **39340-26-6**, DDI 1410 85721-25-1 158516-85-9, Pripol 2033
(package encapsulants prepd. from allylated amide compds.)
L53 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:12713 Document No. 132:79491 Package encapsulant compositions for use in electronic devices. Ma, Bodan; Tong, Quinn K. (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969063 A2 20000105, 45 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112725 19990701. PRIORITY: US 1998-91493 19980702; US 1999-336246 19990618.
AB A curable package encapsulant compn. comprises a maleimide compd. and a curing initiator selected from the group consisting of a free-radical initiator, a photoinitiator, and a combination of those.
IT **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs.
(package encapsulant compns. for use in electronic devices)
RN 39340-26-6 HCAPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **39340-26-6**, DDI 1410

(package encapsulant compns. for use in electronic devices)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00

ICS C08F290-06; C08F299-02; H05K003-38

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

IT **Adhesives**

Encapsulants

Encapsulation

Semiconductor devices

(package encapsulant compns. for use in electronic devices)

IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amino-terminated acrylonitrile-styrene copolymer 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc.

derivs., reduced, maleimide derivs. 55750-53-3P, 6-Maleimidocaproic

acid 76620-00-3P 126968-43-2DP, Versamine 552, p-nitrobenzamide

derivs., reduced, maleimide derivs. 158516-85-9DP, Pripol 2033,

divinyl ether derivs. 203193-13-9P

253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P

253662-01-0P 253662-33-8P 253681-46-8P 253681-47-9P

(package encapsulant compns. for use in electronic devices)

IT 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions

111-34-2, Butyl **vinyl ether** 112-47-0,

1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3,

p-Nitrobenzoyl chloride 589-16-2, 4-Ethyl aniline 619-25-0

814-68-6, Acryloyl chloride 1585-90-6 2451-62-9,

Tris(epoxypropyl)isocyanurate 4098-71-9, 5-Isocyanato-1-

(isocyanatomethyl)-1, 3, 3-trimethylcyclohexane **39340-26-6**

, DDI 1410 126968-43-2, Versamine 552 158516-85-9, Pripol 2033

(package encapsulant compns. for use in electronic devices)

L53 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:12712 Document No. 132:79440 Method of making electronic components using reworkable **adhesives**. Tong, Quinn K.;

Ma, Bodan; Xiao, Chaodong; Shenfield, David (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969062 A2 20000105, 44 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112724 19990701. PRIORITY: US 1998-91506 19980702; US 1999-335809 19990618.

AB A method for making an electronic component **adhered** to a substrate with a cured reworkable **adhesive** compn.

comprises: (a) providing a curable reworkable **adhesive** compn. comprising (i) one or more mono-functional vinyl compds. in a major amt. effective to provide thermoplastic properties, and (ii) optionally, one or more polyfunctional vinyl compds. in a minor amt. ineffective to diminish the thermoplastic properties of the cured compn., (iii) a curing initiator selected from the group consisting of a radical initiator, a photoinitiator, and a combination of those, (iv) optionally, one or more fillers; (v) optionally, one or more **adhesion** promoters; (b) applying the curable reworkable **adhesive** compn. to either the electronic component or the substrate (c) contacting the electronic component and the substrate together; and (d) curing the compn. in situ.

IT **39340-26-6DP**, DDI 1410, m-nitro
benzylalcoholderivs, reduced, maleimide derivs.
(method of making electronic components using reworkable
adhesives)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **39340-26-6**, DDI 1410
(method of making electronic components using reworkable
adhesives)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
ICS C08F290-06; C08F299-02; H05K003-38
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 76

ST reworkable curable **adhesive** polyfunctional vinyl compd;
electronic device fabrication **adhesive**

IT Fatty acids, preparation
(C18-unsatd., dimers and trimers, Empol 1024, reaction products
with propargyl alc. and lauryl mercaptan; method of making
electronic components using reworkable **adhesives**)

IT Nitrile rubber, preparation
(amine-terminated, Hycar ATBN 1300X42, maleimide derivs.; method
of making electronic components using reworkable
adhesives)

IT Polyimides, preparation
(bismaleimide-based; method of making electronic components using
reworkable **adhesives**)

IT **Adhesives**
Semiconductor devices
(method of making electronic components using reworkable
adhesives)

- IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amine-terminated acrylonitrile-butadiene copolymer 112-55-ODP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. **39340-26-6DP**, DDI 1410, m-nitro benzylalcohol derivs., reduced, maleimide derivs. 55750-53-3P, 6-Maleimidocaproic acid 76620-00-3P 126968-43-2DP, Versamine 552, p-nitro benzamide derivs., reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, **divinyl ether** derivs. 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P 253662-33-8P 253681-46-8P 253681-47-9P
(method of making electronic components using reworkable **adhesives**)
- IT 253661-99-3P 253662-00-9P
(method of making electronic components using reworkable **adhesives**)
- IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl **vinyl ether** 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 589-16-2, 4-Ethyl aniline 619-25-0 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6 **39340-26-6**, DDI 1410 126968-43-2, Versamine 552 158516-85-9, Pripol 2033
(method of making electronic components using reworkable **adhesives**)
- IT 9003-18-3P
(nitrile rubber, amine-terminated, Hycar ATBN 1300X42, maleimide derivs.; method of making electronic components using reworkable **adhesives**)
- L53 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:12711 Document No. 132:79490 Underfill encapsulants prepared from allylated amide compounds. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969061 A2 20000105, 52 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112723 19990701. PRIORITY: US 1998-91507 19980702; US 1999-336633 19990618.
- AB An underfill encapsulant comprises an allylated amide compd.; a curing initiator selected from the group consisting of a free-radical initiator, a photoinitiator, and a combination of those; optionally, one or more fillers; optionally, one or more **adhesion promoters**.
- IT **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs.

(underfill encapsulants prepd. from allylated amide compds.)
RN 39340-26-6 HCAPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **39340-26-6**, DDI 1410
(underfill encapsulants prepd. from allylated amide compds.)
RN 39340-26-6 HCAPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
ICS C08F290-06; C08F299-02; H05K003-38
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
IT **Adhesives**
Encapsulants
(underfill encapsulants prepd. from allylated amide compds.)
IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amine-terminated acrylonitrile-butadiene copolymer 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 124-02-7DP, Diallylamine, reaction products with Ricon 131MA5 **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs. 76620-00-3P 102114-99-8P 126968-43-2DP, Versamine 552, p-nitro benzamide derivs. reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, **divinyl ether** derivs. 203193-13-9P
253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P
253662-01-0P 253662-10-1P 253662-31-6P 253662-33-8P
253681-46-8P 253681-47-9P
(underfill encapsulants prepd. from allylated amide compds.)
IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2 79-37-8, Oxalyl chloride 107-11-9, Allyl amine 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl **vinyl ether** 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 124-02-7, Diallylamine 589-16-2, 4-Ethyl aniline 620-92-8, Bisphenol F 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6 **39340-26-6**, DDI 1410 85721-25-1 126968-43-2, Versamine 552 158516-85-9, Pripol 2033
(underfill encapsulants prepd. from allylated amide compds.)

L53 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:758674 Document No. 130:67223 Stabilizers for cationic crosslinking catalysts and their application. Takahashi, Eiji (Nippon Soda Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10310633 A2 19981124 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION:

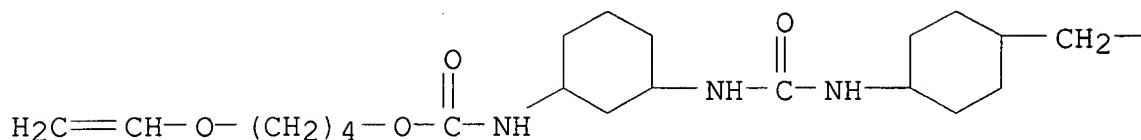
AB The stabilizers comprise (1) compds. having urethane bond, amide bond, urea bond, or carbodiimide group and/or dialkylaminopyridine compds. and/or (2) protonic acid compds. Cation-crosslinkable compns. contain the stabilizers and catalysts of $R_1S+(R_2)(R_3)X^-$ [I: R_1 = aryl; R_2 = C1-8 alkyl; R_3 = (un)substituted alkyl whose C in .alpha.-position from S side is a secondary C, cycloalkyl, alkenyl; X = nonnucleophilic anion residue]. The compns. contg. the stabilizers have improved storage stability at room temp. to 50.degree.. Thus, a compn. contg. UVR 6110 (alicyclic epoxy resin), I (R_1 = 2-naphthyl, R_2 = Me, R_3 = C(Me)HCO₂Et, X = PF₆), and dicyclohexylcarbodiimide was stored at 50.degree. for 7 days to show viscosity increase 3.14 times that of initial compn.

CN Carbamic acid, [1,4-cyclohexanediylbis(iminocarbonylimino-3,1-cyclohexanediyl)]bis-, bis[4-(ethenyloxy)butyl] ester (9CI) (CA INDEX NAME)

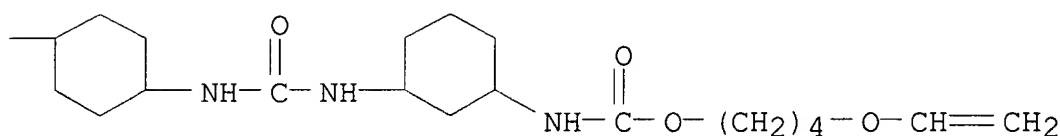
$$\text{H}_2\text{C}=\text{CH}-\text{O}-(\text{CH}_2)_4-\text{O}-\text{C}(=\text{O})-\text{NH}-\text{C}_6\text{H}_{10}-\text{NH}-\text{C}(=\text{O})-\text{NH}-\text{C}_6\text{H}_{10}-\text{NH}-\text{C}(=\text{O})-\text{NH}-$$
C1CCC(CC1)NC(=O)OCCCCOC=C

CN Carbamic acid, [methylenebis(4,1-cyclohexanediyliminocarbonylimino-3,1-cyclohexanediyl)]bis-, bis[4-(ethenyloxy)butyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



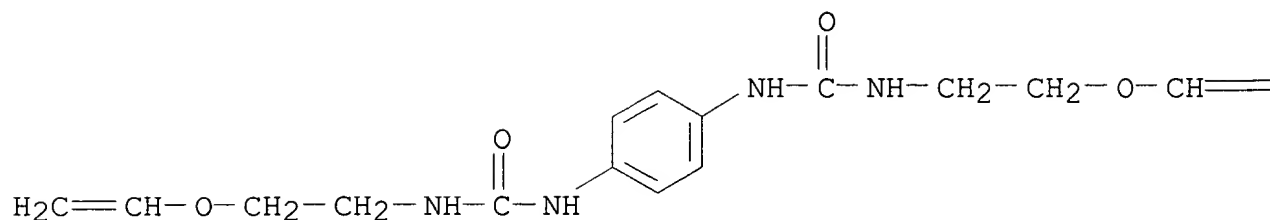
PAGE 1-B



- IC ICM C08G059-68
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 67
 IT 104-15-4, uses 538-75-0, Dicyclohexylcarbodiimide 2387-23-7
 7664-93-9, Sulfuric acid, uses 217644-58-1 **217644-60-5**
 217644-62-7 **217644-64-9**
 (stabilizers for cationic crosslinking catalysts and their application)
- L53 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 1997:356153 Document No. 127:26178 Heat mode writing lithographic plates. Tsuchiya, Mitsumasa; Horie, Seiji (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09080745 A2 19970328 Heisei, 39 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-231675 19950908.
- AB The lithog. plates comprise supports, successively laminated with (A) photosensitive layers contg. compds. with .gtoreq.2 enol ether groups R1R2C:CR3O (R1-R3 = H, alkyl, aryl which may be bonded to form satd. or olefinic unsatd. rings), linear polymers, UV absorbing agents, and acid precursors and (B) silicone rubber layers. The lithog. plates can be used as pos. and neg. type.
- IT **189515-81-9P**
 (heat mode writing lithog. plates with photosensitive layers contg. enol ethers)
- RN 189515-81-9 HCAPLUS
 CN Urea, N,N''-1,4-phenylenebis[N'-[2-(ethenyloxy)ethyl]-, homopolymer (9CI) (CA INDEX NAME)

CRN 150610-14-3
CMF C16 H22 N4 O4

PAGE 1-A



PAGE 1-B

=CH₂

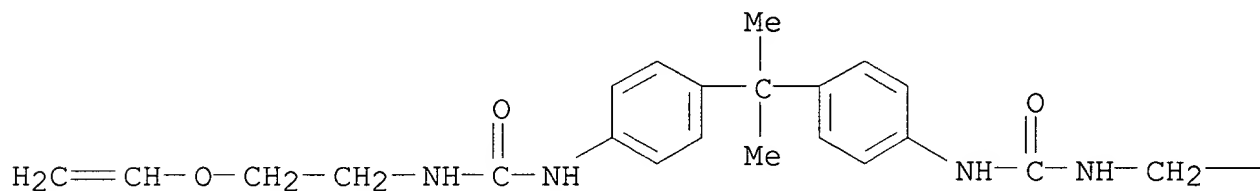
- IC ICM G03F007-00
ICS B41C001-055; G03F007-004; G03F007-029; G03F007-033
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT 86303-85-7P **189515-81-9P**
(heat mode writing lithog. plates with photosensitive layers contg. enol ethers)
- L53 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
1997:154674 Document No. 126:164302 Manufacture of waterless presensitized lithographic plate showing high sensitivity. Tsucha, Mitsumasa; Sato, Hironori; Kondo, Shunichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08328240 A2 19961213 Heisei, 43 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-132034 19950530.
- AB The plate includes a photosensitive layer and a silicone rubber layer successively laminated on a support, where the photosensitive layer is prepd. by applying a coating soln. contg. (A) a compd. having .gtoreq.2 enol (thio)ethers of R1(R2)C:C(R3)O or R1(R2)C:C(R3)S (R1-3 = H, alkyl, aryl), (B) a linear macromol. compd. having an acid group and OH or SH, and (C) a photoacid generator decompd. with active-beam irradiation or radiation, and heating at 60-150.degree. for 30 s-10 min.
- IT **186819-17-0P**
(photosensitive layer; manuf. of waterless presensitized lithog. plate contg. enol ether-crosslinked photoresist layer)

RN 186819-17-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
 2-methyl-2-propenoate, N,N''-[(1-methylethylidene)di-4,1-
 phenylene]bis[N'-[2-(ethenyloxy)ethyl]urea] and phenylmethyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

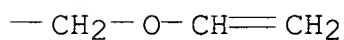
CM 1

CRN 160143-35-1
 CMF C25 H32 N4 O4

PAGE 1-A

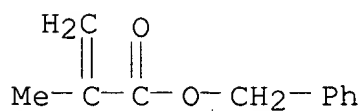


PAGE 1-B



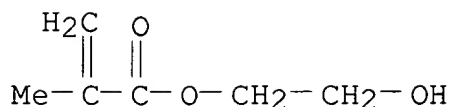
CM 2

CRN 2495-37-6
 CMF C11 H12 O2



CM 3

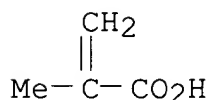
CRN 868-77-9
 CMF C6 H10 O3



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-00

ICS G03F007-039

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 52411-04-8DP, polymers with polyvinyl butyrals, vinyl alc., and vinyl phthalate 160508-63-4P 160508-65-6P 160508-67-8P 160508-71-4P 186819-13-6P 186819-14-7P 186819-15-8P 186819-16-9P **186819-17-0P** 186819-18-1P 186819-20-5P
(photosensitive layer; manuf. of waterless presensitized lithog. plate contg. enol ether-crosslinked photoresist layer)

L53 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1996:745494 Document No. 126:13097 Negative imaging lithographic plate for offset printing master. Kondo, Shunichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08234426 A2 19960913 Heisei, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-35493 19950223.

AB The lithog. plate contains a radiation-absorbing agent, a compd. having .gtoreq.2 enol ether group R1C(R2):C(R3)O- (R1-3 = H, alkyl, aryl; 2 of R may form satd. or unsatd. ring.) , and a linear polymer thermally reacting to the enol ether group. The lithog. plate is suitable for direct imaging by near IR and IR beam.

IT **184093-05-8P**

(neg. imaging lithog. plate obtained from ethylenic polymers for offset printing master)

RN 184093-05-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate, N,N''-1,4-phenylenebis[N''-[2-

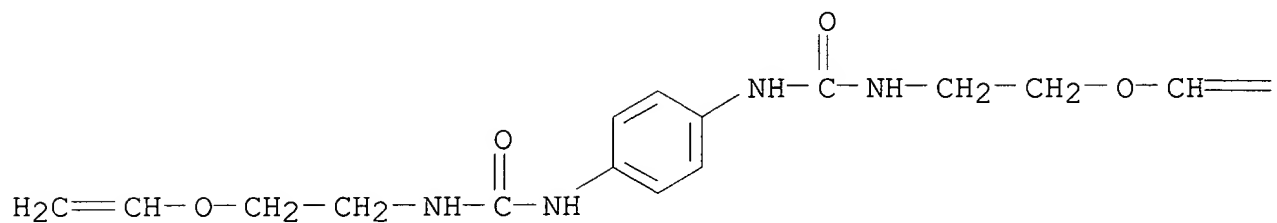
(ethenyloxy)ethyl]urea] and phenylmethyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 150610-14-3

CMF C16 H22 N4 O4

PAGE 1-A



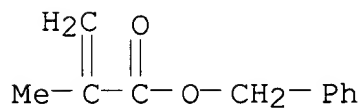
PAGE 1-B

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CM 2

CRN 2495-37-6

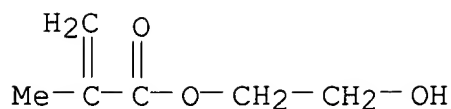
CMF C11 H12 O2



CM 3

CRN 868-77-9

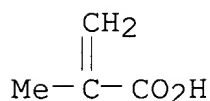
CMF C6 H10 O3



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-028

ICS B41M005-26; B41N001-08; G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 44912-22-3DP, polymers with polyvinyl butyrals and bisphenol A bis(vinylethoxy ether), esters 52411-04-8DP, polymers with polyvinyl butyrals 160508-67-8P 184093-03-6P 184093-04-7P
184093-05-8P

(neg. imaging lithog. plate obtained from ethylenic polymers for offset printing master)

L53 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1996:712385 Document No. 125:342992 Imaging recording material for direct printing plate. Kondo, Shunichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08220752 A2 19960830 Heisei, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-29774 19950217.

AB The material comprises a radiation-absorbing substance, an acid precursor, a compd. having .gtoreq.2 enol ether group R1C(R2):C(R3)O- (R1, R2, R3 = H, alkyl, aryl; .gtoreq.2 Rs may form satd. or unsatd. olefinic ring.), and an alkali-sol. resin. The material is useful for offset printing master. The material is suitable for near IR or IR recording without wavelength dependency.

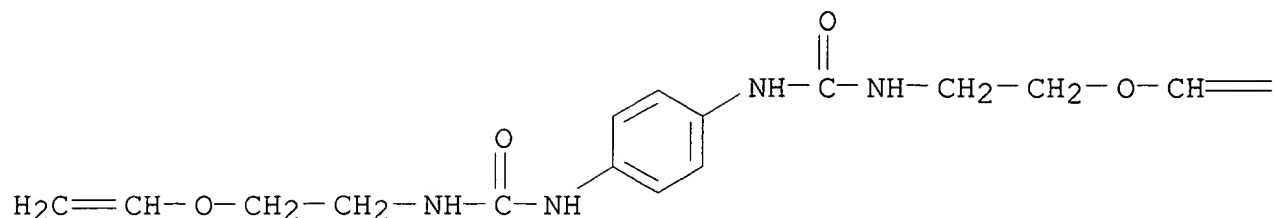
IT **150610-14-3**

(photoimaging recording material for direct printing plate)

RN 150610-14-3 HCAPLUS

CN Urea, N,N''-1,4-phenylenebis[N'-[2-(ethenyloxy)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

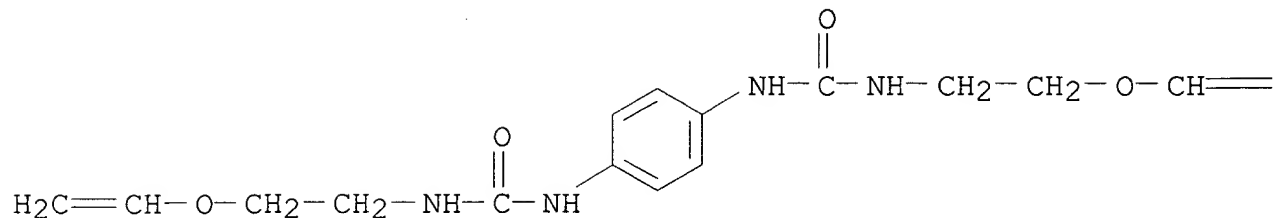


PAGE 1-B

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- IC ICM G03F007-027
ICS B41C001-05; G03F007-004; G03F007-028
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
- IT 3712-60-5 52411-04-8 72015-22-6 146793-37-5
150610-14-3 150610-23-4 183586-85-8 183586-89-2
(photoimaging recording material for direct printing plate)
- L53 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:363372 Document No. 125:22347 Lithographic plate with improved printability. Horie, Seiji; Kondo, Shunichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08082959 A2 19960326 Heisei, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-217694 19940912.
- AB In the title plate comprising a photosensitive layer(s) comprised of a photoconductive compd. and/or a pos.-working photoresist compn. on a conductive support with a hydrophilic surface, the pos.-working photoresist compn. contains (1) a compd. contg. .gtoreq.2 enol ether groups, R₂R₁C:CR₃-O- (R₁₋₃ = H, alkyl, aryl), (2) a linear polymer contg. acid group or OH group, and (3) a photoacid generator, where (2) and (3) are crosslinked by a heat during or after the photosensitive layer formation.
- IT 150610-14-3 160143-36-2
(vinyl ether compd. of pos.-working photoresist)
- RN 150610-14-3 HCAPLUS
- CN Urea, N,N''-1,4-phenylenebis[N'-[2-(ethenyloxy)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

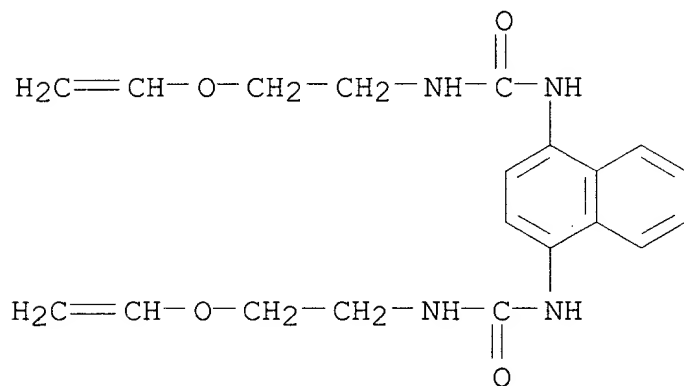


PAGE 1-B

=CH₂

RN 160143-36-2 HCAPLUS

CN Urea, N,N''-1,4-naphthalenediylbis[N'-[2-(ethenyloxy)ethyl]- (9CI)
(CA INDEX NAME)



IC ICM G03G013-28

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT 52411-04-8 84040-76-6 142248-13-3 **150610-14-3**150610-26-7 **160143-36-2**

(vinyl ether compd. of pos.-working photoresist)

L53 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1995:315625 Document No. 122:326513 Positive-working light-sensitive
composition.. Kondo, Syunichi; Umehara, Akira; Aotani, Yoshimasa;

Yamaoka, Tsuguo (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 609684 A1 19940810, 65 pp. DESIGNATED STATES: R: DE, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1994-100530 19940114. PRIORITY: JP 1993-18793 19930205.

AB A pos.-working light-sensitive compn. comprising (a) a compd. having .gtoreq.2 enol ether groups, represented by the following general formula (R2)(R1)C:C(R3)-O- wherein R1, R2 and R3 may be the same or different and each represents a H atom, an alkyl group or an aryl group, provided that each 2 of R1, R2 and R3 may be linked together to form a satd. or olefinically unsatd. ring. (b) a linear polymer having acidic groups; and (c) a compd. capable of generating an acid through irradiation with actinic light rays or radiant rays, the component (a) and the component (b) being thermally crosslinked. The pos.-working light-sensitive compn. has high light-sensitivity and permits the use of light rays extending over a wide range of wavelengths. Therefore, the pos.-working light-sensitive compn. can provide clear pos. images and has a wide development latitude.

IT 160508-79-2 160508-80-5 160508-81-6

(crosslinked; pos.-working photoimaging compn.)

RN 160508-79-2 HCAPLUS

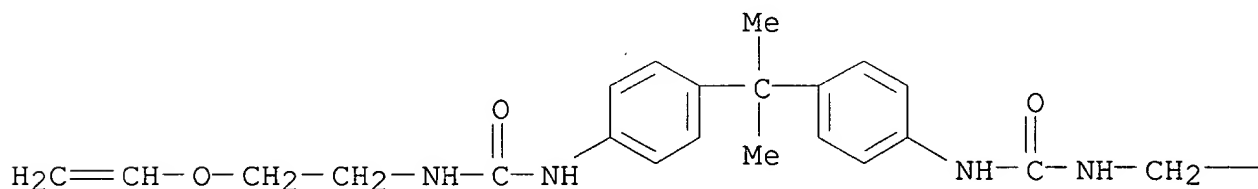
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate, N,N'-[(1-methylethylidene)di-4,1-phenylene]bis[N'-(2-(ethenyloxy)ethyl)urea] and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

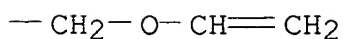
CRN 160143-35-1

CMF C25 H32 N4 O4

PAGE 1-A



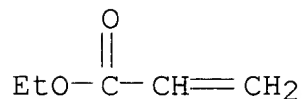
PAGE 1-B



CM 2

CRN 140-88-5

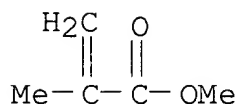
CMF C5 H8 O2



CM 3

CRN 80-62-6

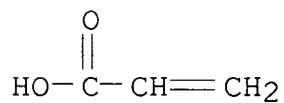
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 160508-80-5 HCAPLUS

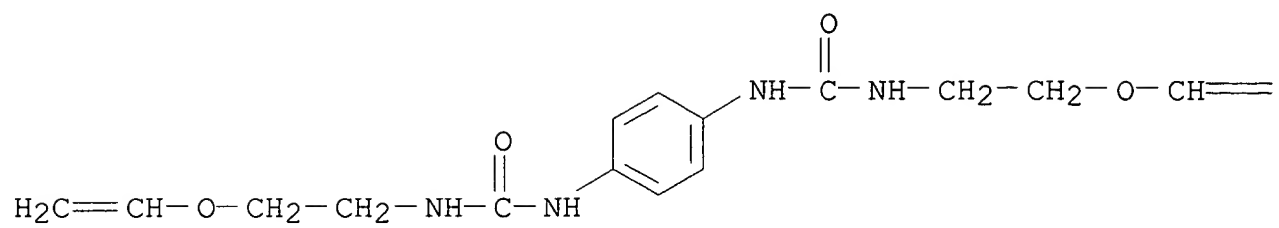
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl
2-propenoate, N,N'-1,4-phenylenebis[N'-[2-(ethenyloxy)ethyl]urea]
and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 150610-14-3

CMF C16 H22 N4 O4

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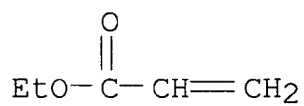
PAGE 1-B

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CM 2

CRN 140-88-5

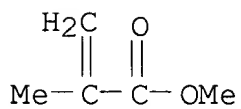
CMF C5 H8 O2



CM 3

CRN 80-62-6

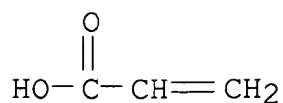
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



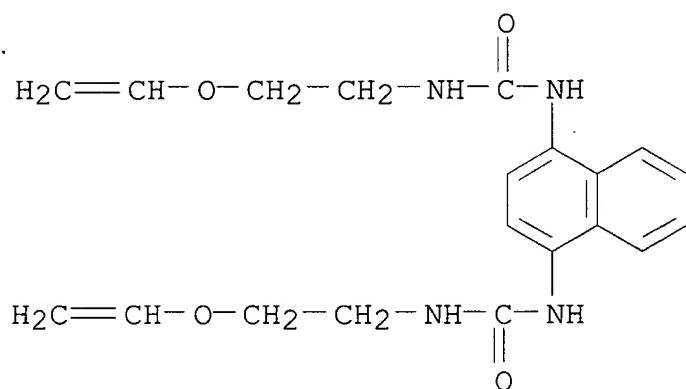
RN 160508-81-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate, N,N''-1,4-naphthalenediylbis[N'-[2-(ethenyloxy)ethyl]urea] and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 160143-36-2

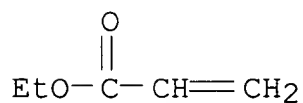
CMF C20 H24 N4 O4



CM 2

CRN 140-88-5

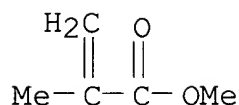
CMF C5 H8 O2



CM 3

CRN 80-62-6

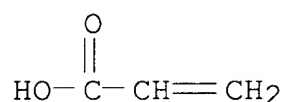
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC ICM G03F007-039

ICS G03F007-004

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 160508-63-4 160508-64-5 160508-65-6 160508-66-7 160508-67-8
 160508-68-9 160508-69-0 160508-71-4 160508-72-5 160508-73-6
 160508-74-7 160508-75-8 160508-76-9 160508-77-0 160508-78-1

160508-79-2 160508-80-5 160508-81-6

160508-82-7 160508-83-8 160508-84-9

(crosslinked; pos.-working photoimaging compn.)

L53 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1995:289993 Document No. 122:68332 Positive-working photoresist composition. Kondo, Shunichi; Aotani, Norimasa; Umehara, Akira (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 06148889 A2 19940527 Heisei, 46 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-303512 19921113.

AB The title photoresist compn. contains (1) a compd. contg. .gtoreq.2 R1R2C:CR3O [R1-3 = H, alkyl, aryl, .gtoreq.2 may join to form satd. or olefinic ring] groups, (2) a linear polymer contg. acid as well as OH groups, and (3) a compd. releasing an acid on photo- or radiolysis, the components (1) and (2) being made to crosslink upon heating. The photoresist gives fine resist patterns when used to prep. lithog. plates, color proofs, overhead projector slides, and integrated circuits for semiconductor devices.

IT **150610-14-3 160143-35-1 160143-36-2**

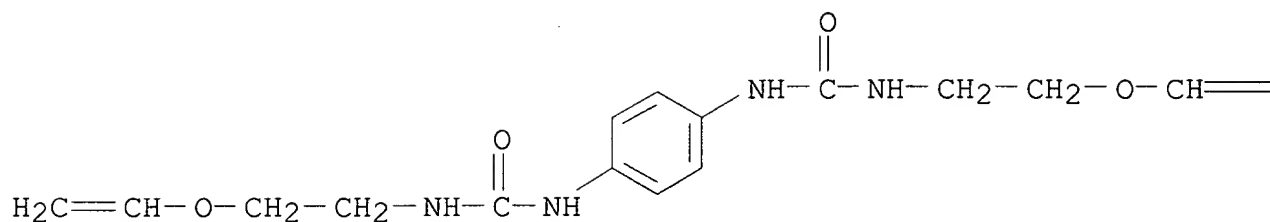
(photoresist compn. contg.)

RN 150610-14-3 HCAPLUS

CN Urea, N,N''-1,4-phenylenebis[N'-[2-(ethenyloxy)ethyl]- (9CI) (CA

INDEX NAME)

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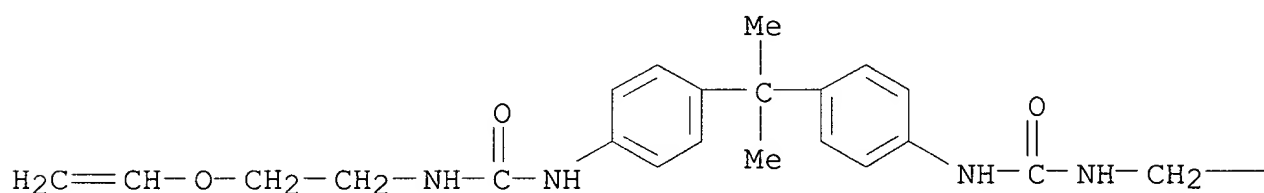
PAGE 1-B

=CH₂

RN 160143-35-1 HCAPLUS

CN Urea, N,N''-[(1-methylethylidene) di-4,1-phenylene]bis[N'-[2-(ethenyloxy)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

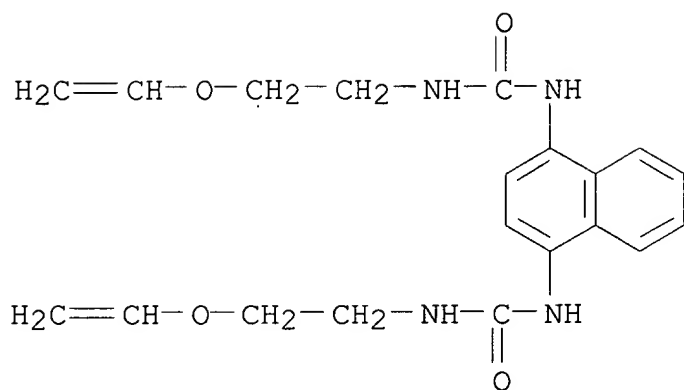


PAGE 1-B

—CH₂—O—CH=CH₂

RN 160143-36-2 HCAPLUS

CN Urea, N,N''-1,4-naphthalenediylbis[N'-[2-(ethenyloxy)ethyl]- (9CI) (CA INDEX NAME)



- IC ICM G03F007-039
ICS G03F007-004; G03F007-038; H01L021-027
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT 25135-39-1, Carboset 525 28136-81-4, 2-Hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 31268-56-1 31693-08-0, 2-Hydroxyethyl methacrylate-methacrylic acid copolymer 34306-73-5, Carboset 526 52411-04-8 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 84040-76-6 100493-79-6, Acrylic acid-benzyl methacrylate-2-hydroxyethyl methacrylate copolymer 103106-58-7, Carboset XL-44 141655-30-3, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid copolymer 142248-13-3 **150610-14-3** 150610-16-5 150610-26-7 160143-33-9 160143-34-0 **160143-35-1** **160143-36-2** 160143-37-3
(photoresist compn. contg.)
- L53 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
1993:591928 Document No. 119:191928 Light-sensitive composition. Kondo, Shunichi; Umehara, Akirai; Aotani, Yoshimasa; Yamaoka, Tsuguno (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 536690 A1 19930414, 37 pp. DESIGNATED STATES: R: BE, DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1992-117029 19921006. PRIORITY: JP 1991-259431 19911007; JP 1991-259433 19911007.
- AB A pos.-working light-sensitive compn. whose soly. in a developer is increased by irradiation of light comprises: (a) a vinyl ether compd. having at least one group represented by the following formula $\text{CH}_2=\text{CH}(\text{OR})\text{nO}$ [R represents a linear or branched alkylene group having 1 to 10 carbon atoms and n represents an integer of 0 or 1]; (b) a compd. capable of being decomposed by irradiation of an actinic light ray or a radiant ray and releasing an acid; and (c) an alkali-sol. polymer. The light-sensitive compn. has high

sensitivity to light and permits the use of light of a wide wavelength range.

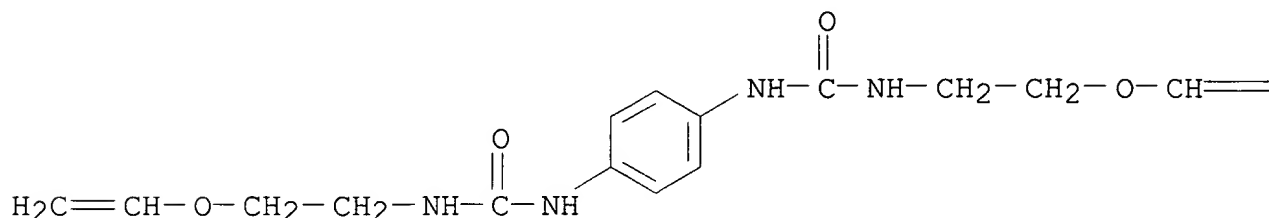
IT **150610-14-3**

(photosensitive compn. contg., pos.-working)

RN 150610-14-3 HCAPLUS

CN Urea, N,N''-1,4-phenylenebis[N'-[2-(ethenyloxy)ethyl]- (9CI) (CA INDEX NAME)

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PAGE 1-B

= CH₂

IC ICM G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 84040-76-6 84563-49-5 121077-29-0 150610-13-2
150610-14-3 150610-15-4 150610-16-5 150610-17-6
 150610-18-7 150610-19-8 150610-20-1 150610-21-2 150610-22-3
 150610-23-4 150610-24-5 150610-25-6 150610-26-7
 (photosensitive compn. contg., pos.-working)

L53 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1991:460848 Document No. 115:60848 Electrophotographic photoreceptor with photoconductive layer containing azo pigment. Miyazaki, Hajime; Miyaji, Toshie; Inai, Kazufumi; Go, Shintetsu (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 03002872 A2 19910109 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-136221 19890531.

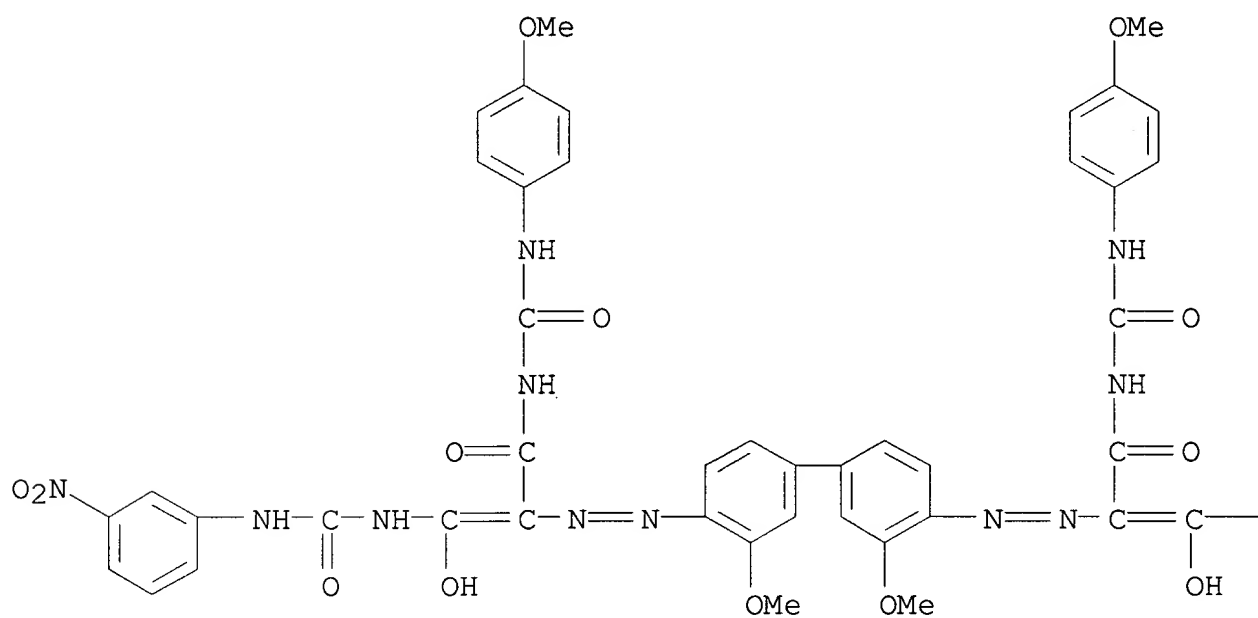
GI For diagram(s), see printed CA Issue.

AB The photoreceptor comprises a photoconductive layer contg. an azo pigment prepd. by azo coupling a chain compd. having active methylene group with an arom. diazonium salt. The photoreceptor shows good photosensitivity and stable charge in repeated use.

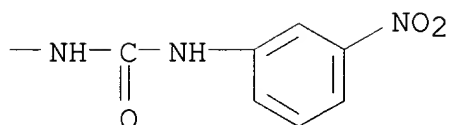
Thus, an Al substrate was coated with a charge-generating layer contg. I and with a charge-transporting layer to give a photoreceptor.

IT 135025-26-2 135061-87-9
 (electrophotog. photoreceptor charge-generating agent)
 RN 135025-26-2 HCAPLUS
 CN 2-Propenamide, 2,2'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-hydroxy-N-[(4-methoxyphenyl)amino]carbonyl]-3-[[[(3-nitrophenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

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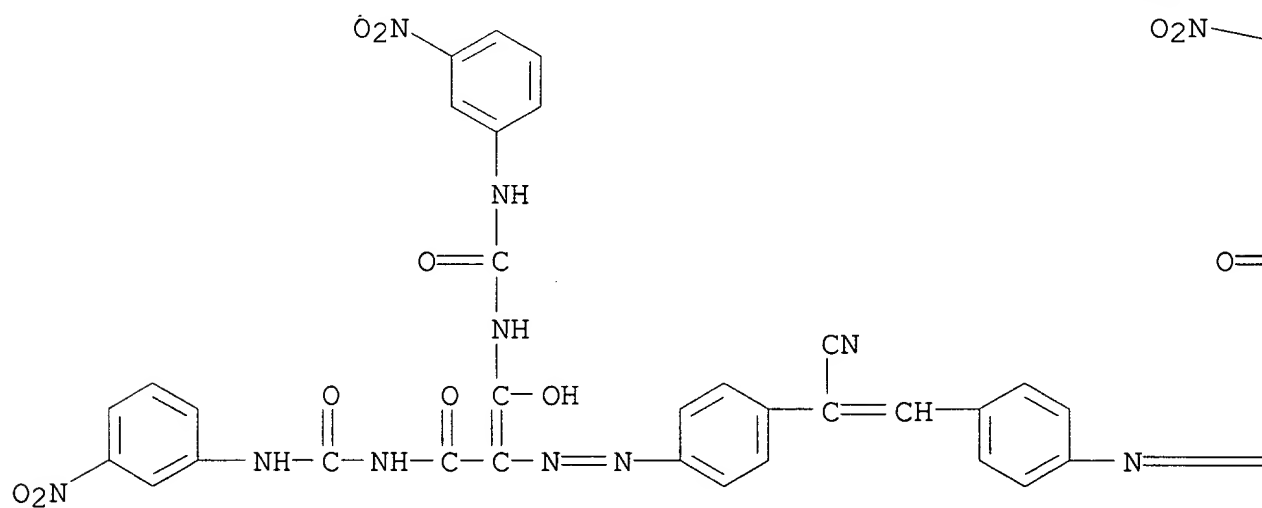
PAGE 1-B



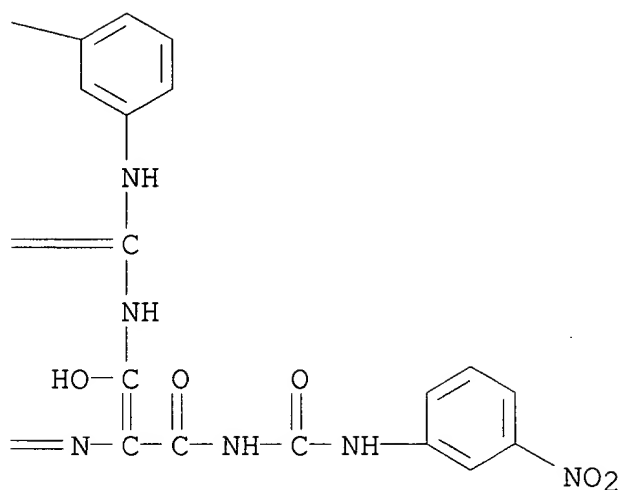
RN 135061-87-9 HCAPLUS

CN 2-Propenamide, 2,2'-[(1-cyano-1,2-ethenediyl)bis(4,1-phenyleneazo)]bis[3-hydroxy-N-[(3-nitrophenyl)amino]carbonyl]-3-[[[(3-nitrophenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

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- IC ICM G03G005-06
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
- IT 135025-23-9 135025-24-0 135025-25-1 **135025-26-2**
135025-27-3 135025-28-4 135025-29-5 135025-30-8 135025-31-9
135025-32-0 135061-86-8 **135061-87-9**
(electrophotog. photoreceptor charge-generating agent)
- L53 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
1985:100800 Document No. 102:100800 Anticoccidial combinations comprising polyether antibiotics and carbanilides. O'Doherty, George O. P.; Clinton, Albert J. (Eli Lilly and Co., USA). Can. CA 1171782 A1 19840731, 54 pp. (English). CODEN: CAXXA4.
APPLICATION: CA 1980-367322 19801222. PRIORITY: US 1979-107304 19791226.
- AB Coccidiosis in poultry is controlled by oral administration of a polyether antibiotic in combination with a carbanilide or a thiocarbanilide in feeding materials. A no. of feed compns. are given to which monensin [17090-79-8] and a carbonitrile such as 3,3'-bis(trifluoromethyl)-4,4'-dichlorocarbanilide [370-50-3] may be added. A large no. of combinations were evaluated in chickens infected with oocysts of Eimeria cervulina and E. tenella. The combinations gave superior anticoccidial efficacy to the compds. alone. The compds. were prepd., e.g., by reaction of 3-nitro-5-(trifluoromethyl)-o-phenylenediamine [2078-01-5] with 2,4-dimethylphenyl isocyanate [51163-29-2] which gave

2-amino-3-nitro-5-(trifluoromethyl)-2',4-dimethylcarbanilide
[76393-19-6].

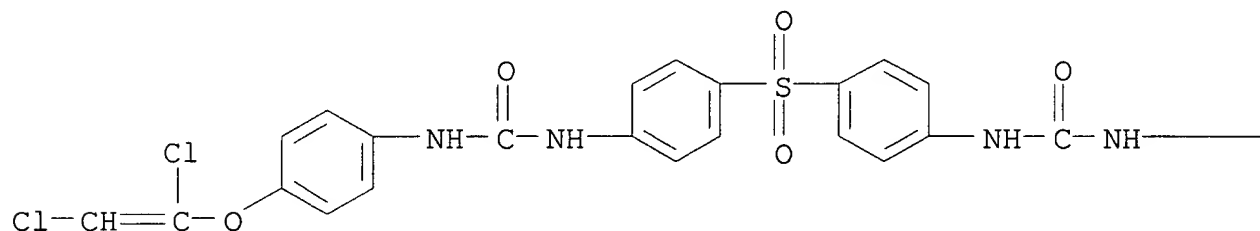
IT 55266-57-4

(anticoccidal compns. contg. polyether antibiotics and)

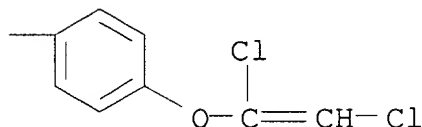
RN 55266-57-4 HCAPLUS

CN Urea, N,N''-(sulfonyldi-4,1-phenylene)bis[N'-[4-[(1,2-dichloroethenyl)oxy]phenyl]- (9CI) (CA INDEX NAME)

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IC A61K031-17; A61K031-00; A23K001-17

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 18, 25

IT	370-50-3	1054-50-8	1054-51-9	1060-92-0	1061-91-2	1495-05-2
	1960-88-9	2053-92-1	2063-69-6	3824-74-6	4528-83-0	
	13208-44-1	14384-84-0	14384-85-1	14384-86-2	14384-94-2	
	14384-95-3	14384-96-4	14384-97-5	14384-98-6	14384-99-7	
	14538-36-4	14980-61-1	16588-81-1	16588-84-4	23747-70-8	
	23747-71-9	23747-76-4	34594-47-3	47635-17-6	55225-08-6	
	55225-09-7	55225-10-0	55225-11-1	55225-12-2	55225-13-3	
	55225-14-4	55225-15-5	55225-16-6	55225-17-7	55225-18-8	
	55225-19-9	55225-20-2	55225-21-3	55225-22-4	55225-23-5	
	55225-24-6	55225-25-7	55225-26-8	55225-27-9	55225-28-0	
	55225-29-1	55225-30-4	55225-31-5	55225-32-6	55225-33-7	
	55225-34-8	55225-35-9	55225-36-0	55225-37-1	55225-38-2	
	55225-39-3	55225-40-6	55225-41-7	55225-42-8	55225-43-9	
	55225-44-0	55225-45-1	55225-46-2	55225-47-3	55225-48-4	
	55225-49-5	55225-50-8	55225-51-9	55225-52-0	55225-53-1	

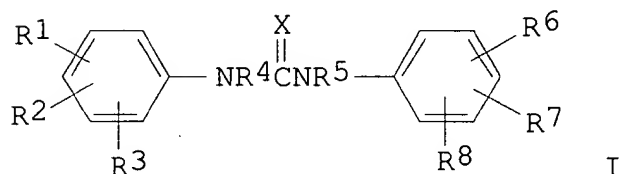
55225-54-2	55225-55-3	55225-56-4	55225-57-5	55225-58-6
55225-59-7	55225-60-0	55225-62-2	55225-63-3	55225-64-4
55225-65-5	55225-66-6	55225-67-7	55225-68-8	55225-69-9
55225-70-2	55225-71-3	55225-72-4	55225-73-5	55225-74-6
55225-75-7	55225-76-8	55225-77-9	55225-78-0	55225-79-1
55225-80-4	55225-81-5	55225-82-6	55225-84-8	55225-85-9
55266-54-1	55266-55-2	55266-56-3	55266-57-4	
55642-23-4	76393-07-2	76393-09-4	76393-10-7	76393-11-8
76393-12-9	76393-13-0	76393-14-1	76393-15-2	76393-26-5
76393-30-1	76393-31-2	76393-32-3	76393-33-4	76393-34-5
76393-35-6	76393-36-7	76393-37-8	76393-38-9	76393-39-0
76393-40-3	76393-41-4	76393-42-5	76393-43-6	76393-44-7
76393-45-8	76393-46-9	76393-47-0	76393-48-1	76393-49-2
76393-50-5	76393-51-6	76393-52-7	76393-53-8	76393-54-9
76393-55-0	76393-57-2	76393-59-4	76393-60-7	76393-61-8
76393-62-9	76393-63-0	76393-64-1	76393-65-2	76393-66-3
76393-67-4	76393-68-5	76393-69-6	76393-70-9	93588-23-9
93619-29-5	93619-30-8			

(anticoccidal compns. contg. polyether antibiotics and)

L53 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1981:71498 Document No. 94:71498 Anticoccidial composition and carbanilides. Callender, Maurice Emerson; Jeffers, Thomas Kirk; O'Doherty, George Oliver Plunkett; Clinton, Albert James (Eli Lilly and Co., USA). Eur. Pat. Appl. EP 15110 19800903, 93 pp. (English). CODEN: EPXXDW. APPLICATION: EP 1980-300387 19800211.

GI



AB Anticoccidial compns. such as feedstuffs or premixes for poultry such as chicken or turkey contain a combination of a polyether antibiotic and a carbanilide I (R1, R2, and R3 = H, halogen, CN, NH2, NO2, C1-6 alkyl, C2-4 alkanoylamino, C1-4 alkylthio, substituted phenoxy, etc.; R4 and R5 = H or C1-4 alkyl; R6, R7, and R8 = H, halogen, CN, NH2, C2-4 haloalkenyloxy, etc.). Thus, a premix contg. 2-amino-2'-chloro-3,4'-dinitro-5-(trifluoromethyl)carbanilide [76393-24-3] and monensin [17090-79-8] each at 50 ppm effectively controlled coccidiosis in 1-wk broiler chicks infected with Eimeria acervulina and E. tenella.

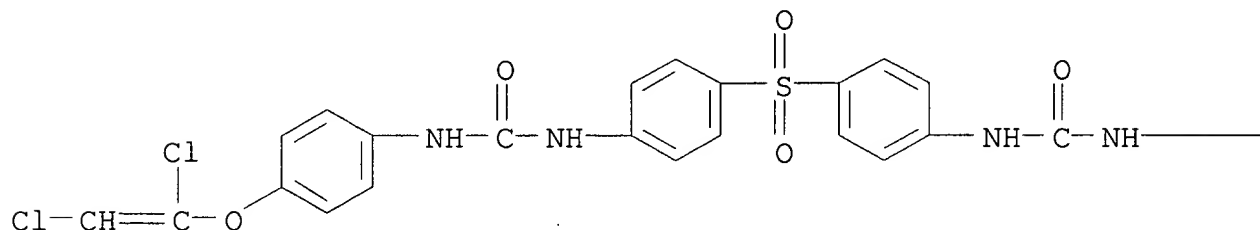
IT **55266-57-4**

(anticoccidial compns. contg. polyether antibiotic and)

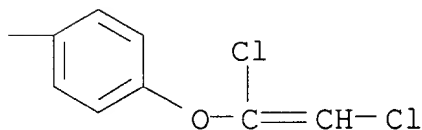
RN 55266-57-4 HCAPLUS

CN Urea, N,N'-(sulfonyldi-4,1-phenylene)bis[N'-[4-[(1,2-dichloroethenyl)oxy]phenyl]- (9CI) (CA INDEX NAME)

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IC A61K045-06; A61K035-66; C07C127-19; A61K035-66

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 18, 25

IT	1054-50-8	1495-05-2	14384-84-0	14384-85-1	14384-86-2
	14384-96-4	14538-36-4	55225-09-7	55225-10-0	55225-11-1
	55225-14-4	55225-16-6	55225-17-7	55225-19-9	55225-20-2
	55225-21-3	55225-22-4	55225-23-5	55225-24-6	55225-25-7
	55225-26-8	55225-27-9	55225-28-0	55225-29-1	55225-30-4
	55225-31-5	55225-32-6	55225-34-8	55225-35-9	55225-36-0
	55225-37-1	55225-38-2	55225-39-3	55225-40-6	55225-41-7
	55225-42-8	55225-43-9	55225-44-0	55225-45-1	55225-46-2
	55225-47-3	55225-48-4	55225-49-5	55225-50-8	55225-51-9
	55225-52-0	55225-53-1	55225-54-2	55225-55-3	55225-56-4
	55225-57-5	55225-58-6	55225-59-7	55225-60-0	55225-61-1
	55225-62-2	55225-63-3	55225-64-4	55225-66-6	55225-67-7
	55225-68-8	55225-69-9	55225-70-2	55225-71-3	55225-72-4
	55225-73-5	55225-75-7	55225-76-8	55225-77-9	55225-78-0
	55225-79-1	55225-80-4	55225-81-5	55225-82-6	55225-84-8
	55225-85-9	55266-55-2	55266-56-3	55266-57-4	
	55642-23-4	76393-69-6	76393-70-9		

(anticoccidial compns. contg. polyether antibiotic and)

L53 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 1975:139800 Document No. 82:139800 Diphenyl(thio)ureas. Raether,
 Wolfgang; Schoenowsky, Hubert; Hoerlein, Gerhard; Winkelmann, Erhard
 (Farbwerke Hoechst A.-G.). Ger. Offen. DE 2334355 19750116, 20 pp.
 (German). CODEN: GWXXBX. APPLICATION: DE 1973-2334355 19730706.

GI For diagram(s), see printed CA Issue.

AB Eighty-eight (thio)ureas I [X = O or S; R = e.g. H, 2-Cl, 3-CF₃, or
 4-Me; R₁ = e.g. 4-MeO, 4-MeS, 4-CF₃S, 4-CCl₂HCF₂O, 4-ClC₆H₄O, or
 4-[4-(3-CF₃SC₆H₄NHCONH)C₆H₄SO₂]; R₂ = e.g. H, 4-Cl, 5-NO₂, 5-CF₃, or
 4-ClCH:CClO; R₃ = e.g. H, 4-MeO, or 4-Cl; R₄ = e.g. H, 6-CF₃, or
 5-Cl], used in the treatment of coccidiosis in chicken, were manufd.
 in 75-90% yield by reaction of phenyl iso(thio)cyanates with
 anilines in inert solvents contg. a tertiary org. base 1 hr at
 reflux temp.

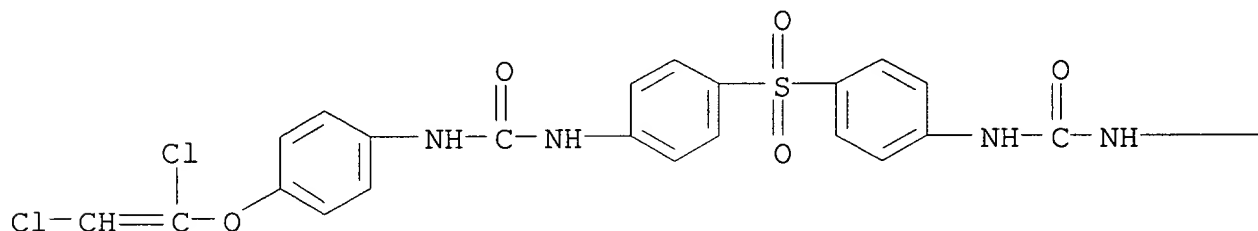
IT **55266-57-4P**

(manuf. of coccidiostatic)

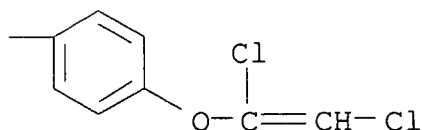
RN 55266-57-4 HCAPLUS

CN Urea, N,N'-(sulfonyldi-4,1-phenylene)bis[N'-(4-[(1,2-
 dichloroethenyl)oxy]phenyl)]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC C07C; A61K

CC 25-21 (Noncondensed Aromatic Compounds)

Section cross-reference(s): 5

IT 1054-50-8P 1054-51-9P 1061-91-2P 1495-05-2P 2063-69-6P
 55225-08-6P 55225-09-7P 55225-10-0P 55225-11-1P 55225-12-2P

55225-13-3P	55225-14-4P	55225-15-5P	55225-16-6P	55225-17-7P
55225-18-8P	55225-19-9P	55225-20-2P	55225-21-3P	55225-22-4P
55225-23-5P	55225-24-6P	55225-25-7P	55225-26-8P	55225-27-9P
55225-28-0P	55225-29-1P	55225-30-4P	55225-31-5P	55225-32-6P
55225-33-7P	55225-34-8P	55225-35-9P	55225-36-0P	55225-37-1P
55225-38-2P	55225-39-3P	55225-40-6P	55225-41-7P	55225-42-8P
55225-43-9P	55225-44-0P	55225-45-1P	55225-46-2P	55225-47-3P
55225-48-4P	55225-49-5P	55225-50-8P	55225-51-9P	55225-52-0P
55225-53-1P	55225-54-2P	55225-55-3P	55225-56-4P	55225-57-5P
55225-58-6P	55225-59-7P	55225-60-0P	55225-61-1P	55225-62-2P
55225-63-3P	55225-64-4P	55225-65-5P	55225-66-6P	55225-67-7P
55225-68-8P	55225-69-9P	55225-70-2P	55225-71-3P	55225-72-4P
55225-73-5P	55225-74-6P	55225-75-7P	55225-76-8P	55225-77-9P
55225-78-0P	55225-79-1P	55225-80-4P	55225-81-5P	55225-82-6P
55225-83-7P	55225-84-8P	55225-85-9P	55266-54-1P	55266-55-2P
55266-56-3P	55266-57-4P	55642-23-4P		

(manuf. of coccidiostatic)

L53 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

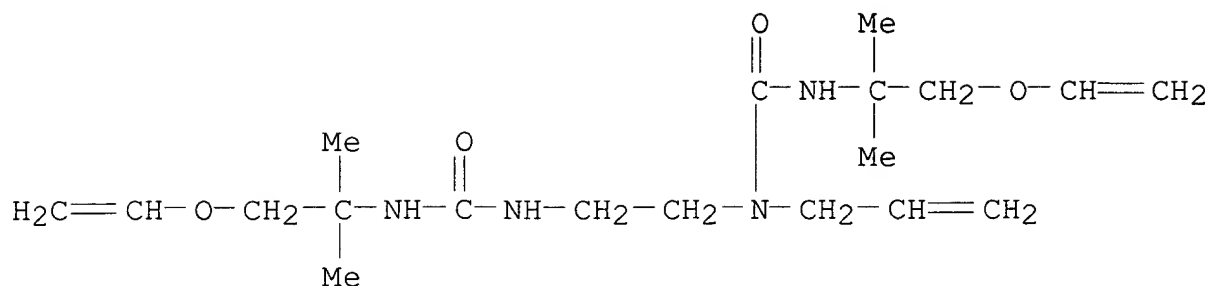
1958:56261 Document No. 52:56261 Original Reference No. 52:10188b-d
 Acrylyl isocyanates and their polymers. Lieser, Theodor (I. P.
 Bemberg A.-G.). DE 827553 19520110 (Unavailable). APPLICATION: DE

AB Acrylyl isocyanate (I) and derivs. which give on polymerization
 synthetic resins are obtained by the reaction of AgOCN and acrylyl
 chloride (II). To 180 g. II in 300 cc. Et2O was added slowly an
 ice-cold suspension of 300 g. AgOCN in 500 cc. Et2O, the mixt.
 stirred 24 hrs., filtered, another 50 g. AgOCN added to remove all
 Cl, the mixt. kept overnight on ice, and to the filtered soln. of I
 an ethereal soln. of aniline added to ppt. N,-phenyl-N'-acrylylurea,
 m. 147.degree.. Also prepd. were N,-phenyl-N'-methacrylylurea, m.
 129.degree.; (CH2:CHCONHCO2CH2)2, m. 168.degree.; benzylacrylyl
 urethan, m. 115.degree.; and benzyl .alpha.-chloroacrylyl urethan,
 m. 115.degree.. The acrylyl urethans and ureas polymerized when
 heated 5-10.degree. above the m.p. Addn. of benzoyl peroxide was
 necessary for polymerization of the methacrylyl derivs. and I
 polymerized under ultraviolet radiation.

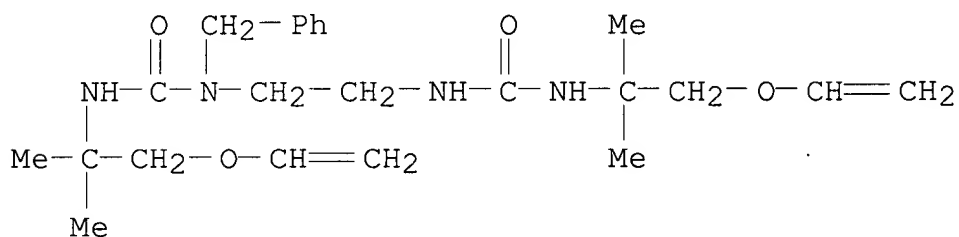
IT **110393-83-4**, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-
 2-vinyloxyethyl)- **114863-77-3**, Urea, 1-benzyl-1,1'-
 ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- **122542-31-8**,
 Urea, 1,1'-ethylenebis[1-benzyl-3-(1,1-dimethyl-2-vinyloxyethyl)-
124158-36-7, Urea, 1-phenyl-1,1'-ethylenebis[3-(1,1-dimethyl-
 2-vinyloxyethyl)- **124403-16-3**, Urea, 1-dodecyl-1,1'-
 ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
 (prepn. of)

RN 110393-83-4 HCAPLUS

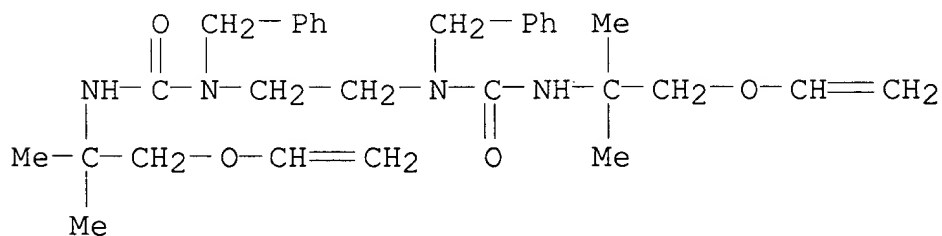
CN Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
 (6CI) (CA INDEX NAME)



RN 114863-77-3 HCAPLUS

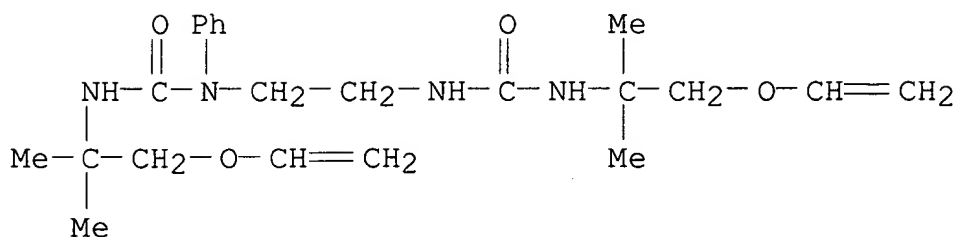
CN Urea, 1-benzyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)

RN 122542-31-8 HCAPLUS

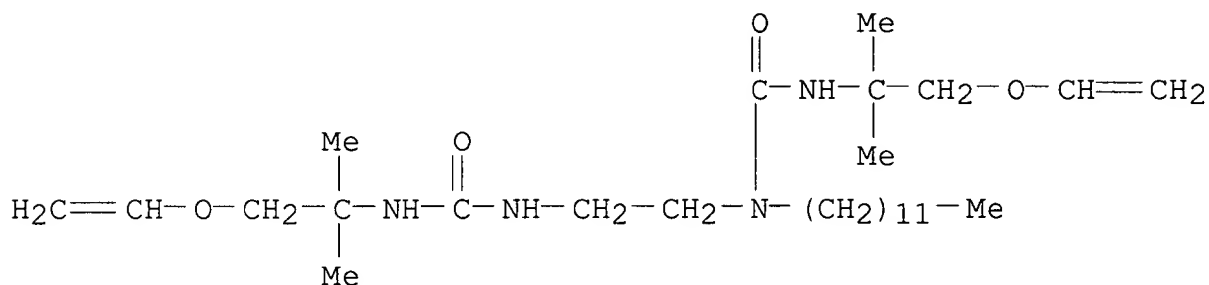
CN Urea, 1,1'-ethylenebis[1-benzyl-3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)]

RN 124158-36-7 HCAPLUS

CN Urea, 1-phenyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)]



RN 124403-16-3 HCAPLUS

CN Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)]

NCL 39C; 25-01

CC 10 (Organic Chemistry)

IT 13641-97-9, Isocyanic acid, anhydride with acrylic acid
 24683-82-7, Carbamic acid, acryloyl-, ethylene ester 71868-35-4,
 Urea, 1-acryloyl-3-phenyl- 102254-08-0, Urea, 1-methacryloyl-3-
 phenyl- **110393-83-4**, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-
 dimethyl-2-vinyloxyethyl)- **114863-77-3**, Urea,
 1-benzyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
122542-31-8, Urea, 1,1'-ethylenebis[1-benzyl-3-(1,1-dimethyl-
 2-vinyloxyethyl)- **124158-36-7**, Urea, 1-phenyl-1,1'-
 ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- **124403-16-3**,
 Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
 (prepn. of)]

L53 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1958:56260 Document No. 52:56260 Original Reference No.

52:10187f-i,10188a-b Polymerizable poly(ethylenically unsaturated
 compounds), and polymers thereof. Melamed, Sidney (Rohm & Haas
 Co.). US 2824858 19580225 (Unavailable). APPLICATION: US .

GI For diagram(s), see printed CA Issue.

AB Unsaturated ethers were prepared by treating 1 mole polyisocyanate with 2
 or 3 moles aminoalkyl vinyl ether. Thus, 26.8 g. 2-aminoethyl vinyl

ether in 50 ml. C₆H₆ was added slowly to 35.4 g. 1,8-diisocyanato-p-menthane in 100 ml. dry C₆H₆, which had previously been cooled, the pptd. solid filtered off, and recrystd. from MeOH to give 17 g. CH₂:CHOCH₂CH₂NHOCNHCM_e.CH₂.CH₂.CH(CMe₂NHCO-NHCH₂CH₂OCH:CH₂).CH₂.CH₂, m. 145-6.degree.. Similarly prepd. were 1,6-bis(2-vinyloxyethylureido)hexane, m. 171.degree., and the products of: OCN(CH₂)₆NCO and CH₂:CHOCH₂CH₂NHMe; OCN(CH₂)₁₀NCO and CH₂:CHO(CH₂)₅NH₂; (p-OCNC₆H₄)₂CH₂ and CH₂:CHOCH(Ch₁₆H₃₃)CH₂NH₂; 2,4-diisocyanato-1-chlorobenzene and (CH₂:CHOCH₂CH₂)₂NH; 2,6-diisocyanatonaphthalene and CH₂:CHOCH₂CH₂NHC₆H₃Cl₂-2,4; CH(C₆H₄NCO-p)₃ and CH₂:CHOCH₂CH₂NHMe; di(carbamyl chloride) of piperazine (I) and 2-(N-methylaminoethyl) vinyl ether; bis(carbamyl chloride) of N,N'-dilaurylhexamethylenediamine and .beta.-hydroxyethylaminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-bis-(p-chlorophenyl)hexamethylenediamine and .beta.-cyanoethylaminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-dibenzylidiphenylene-4,4'-diamine and octadecylaminoethyl vinyl ether; I and 3-dimethylaminopropylaminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-bis(p-nitrophenyl)hexamethylenediamine and benzylaminoethyl vinyl ether; I and 4-aminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-diethylphenylenediamine and 2-aminoisobutyl vinyl ether; trimethylenediamine and 2-isocyanatoisobutyl vinyl ether (II); I and 2-(N-tert-octylamino)ethyl vinyl ether; I and 2-[N-(p-chlorophenyl)amino]ethyl vinyl ether; and II with ethylenediamine, tetramethylenediamine, decamethylenediamine, phenylenediamine, 1,2,6-triaminohexane, piperazine, N,N'-dibutylethylenediamine, N,N'-dibenzylethylenediamine, N-benzylethylenediamine, N-phenylethylenediamine, N-dodecylethylenediamine, and N-allylethylenediamine. Polymers were prepd. using these compds. and di-Me azoisobutyrate, 4-vinylpyridine, and Me methacrylate. These compds. are valuable in polymer formation and for insecticides.

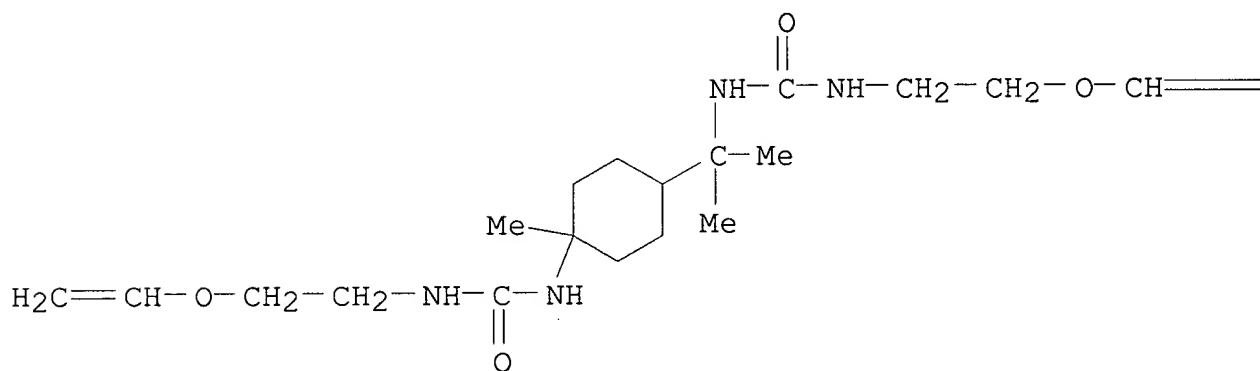
IT 103507-15-9, Urea, 1-(2-vinyloxyethyl)-3-{8-[3-(2-vinyloxyethyl)ureido]-p-menth-1-yl}- 108517-76-6, Urea, 1,1',1''-(methylidynetri-p-phenylene)tris[3-methyl-3-(2-vinyloxyethyl)- 109452-28-0, Urea, 1,1'-hexamethylenebis[3-(2-vinyloxyethyl)- 109501-98-6, Urea, 1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109568-61-8, Urea, 1,1'-tetramethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109643-40-5, Urea, 1,1'-hexamethylenebis[3-methyl-3-(2-vinyloxyethyl)- 109817-70-1, Urea, 1,1'-trimethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 110393-83-4, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 112555-37-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 117900-00-2, Urea, 1,1',1''-(1,2,6-hexanetriyl)tris[3-(1,1-dimethyl-2-vinyloxyethyl)- 118871-09-3, Urea, 1,1'-(4-chloro-m-phenylene)bis[3,3-bis(2-

vinyloxyethyl)- **119568-52-4**, Urea, 1,1'-(2,6-naphthylene)bis[3-(2,4-dichlorophenyl)-3-(2-vinyloxyethyl)-
119721-33-4, Urea, 1,1'-decamethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- **119721-34-5**, Urea, 1,1'-ethylenebis[1-butyl-3-(1,1-dimethyl-2-vinyloxyethyl)- **120122-11-4**, Urea, 1,1'-hexamethylenebis[3-benzyl-1-(p-nitrophenyl)-3-(2-vinyloxyethyl)-
120526-81-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-1-ethyl- **121446-76-2**, Urea, 1,1'-hexamethylenebis[1-(p-chlorophenyl)-3-(2-cyanoethyl)-3-(2-vinyloxyethyl)- **122337-39-7**, Urea, 1,1'-hexamethylenebis[1-dodecyl-3-(2-hydroxyethyl)-3-(2-vinyloxyethyl)- **122359-64-2**, Urea, 1,1'-(4,4'-biphenylene)bis[1-benzyl-3-octadecyl-3-(2-vinyloxyethyl)- **122493-75-8**, Urea, 1,1'-decamethylenebis[3-(5-vinyloxypentyl)- **124113-04-8**, Urea, 1,1'-(methylenedi-p-phenylene)bis[3-(2-vinyloxyoctadecyl)-
124403-16-3, Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
 (prepn. of)

RN 103507-15-9 HCAPLUS

CN Urea, 1-(2-vinyloxyethyl)-3-[8-[3-(2-vinyloxyethyl)ureido]-p-menth-1-yl]- (6CI) (CA INDEX NAME)

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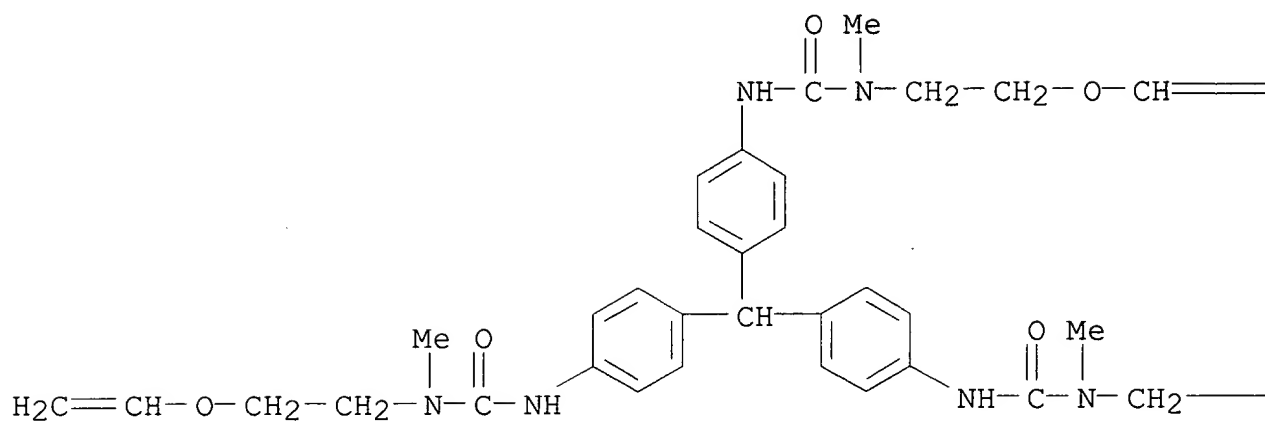
=CH₂

RN 108517-76-6 HCAPLUS

CN Urea, 1,1',1''-(methyldynetri-p-phenylene)tris[3-methyl-3-(2-

vinylxyethyl)- (6CI) (CA INDEX NAME)

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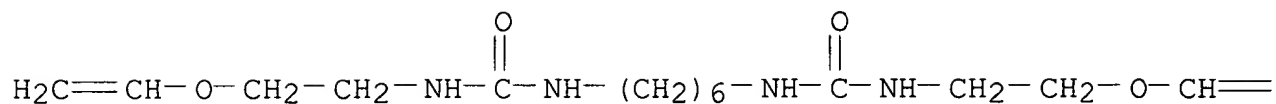
= CH2

- CH2- O- CH= CH2

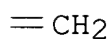
RN 109452-28-0 HCAPLUS

CN Urea, 1,1'-hexamethylenebis[3-(2-vinylxyethyl)- (6CI) (CA INDEX NAME)

PAGE 1-A

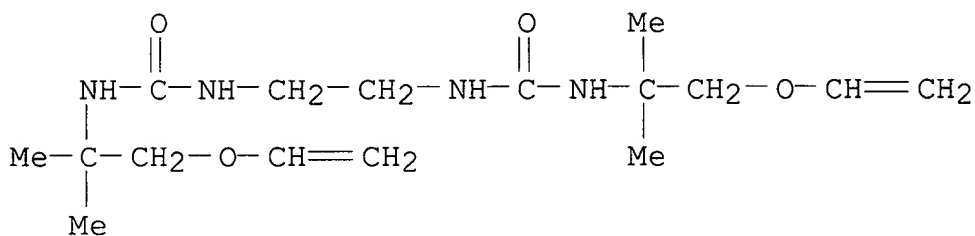


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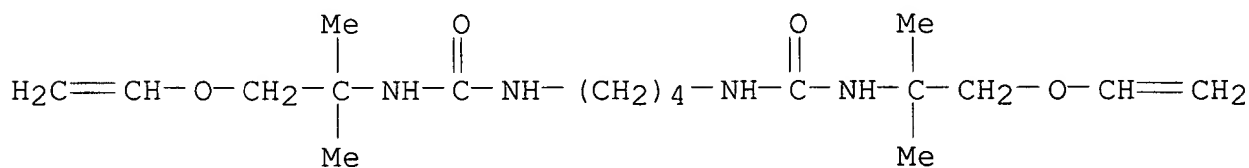
RN 109501-98-6 HCAPLUS

CN Urea, 1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



RN 109568-61-8 HCAPLUS

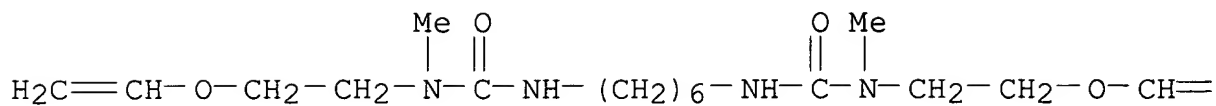
CN Urea, 1,1'-tetramethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



RN 109643-40-5 HCAPLUS

CN Urea, 1,1'-hexamethylenebis[3-methyl-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)

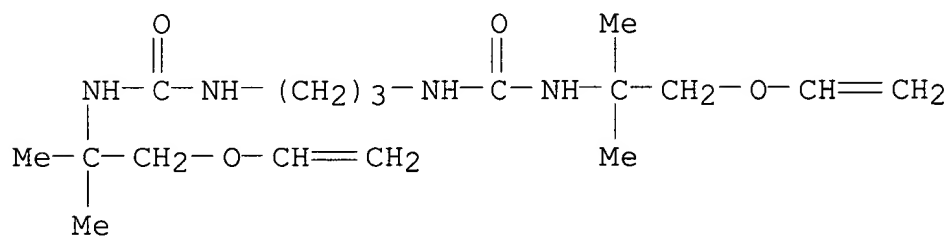
PAGE 1-A



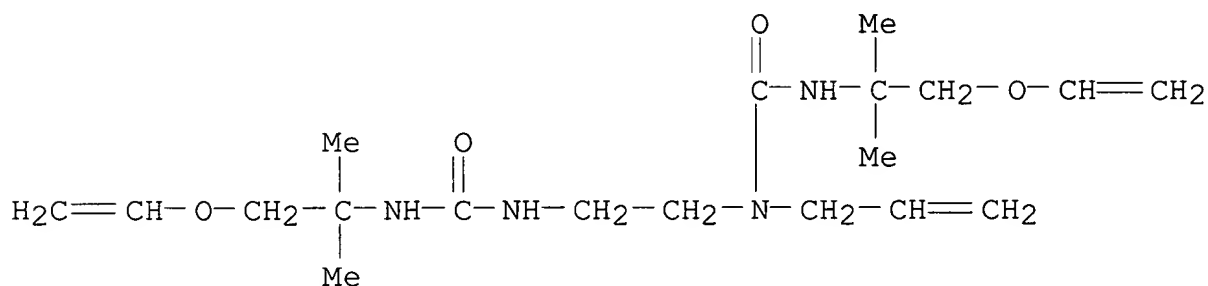
PAGE 1-B

=CH₂

RN 109817-70-1 HCAPLUS

CN Urea, 1,1'-trimethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI)
(CA INDEX NAME)

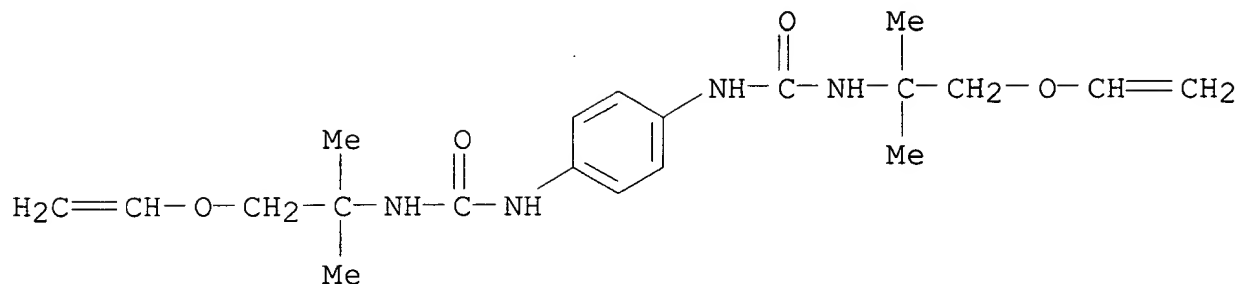
RN 110393-83-4 HCAPLUS

CN Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)

RN 112555-37-0 HCAPLUS

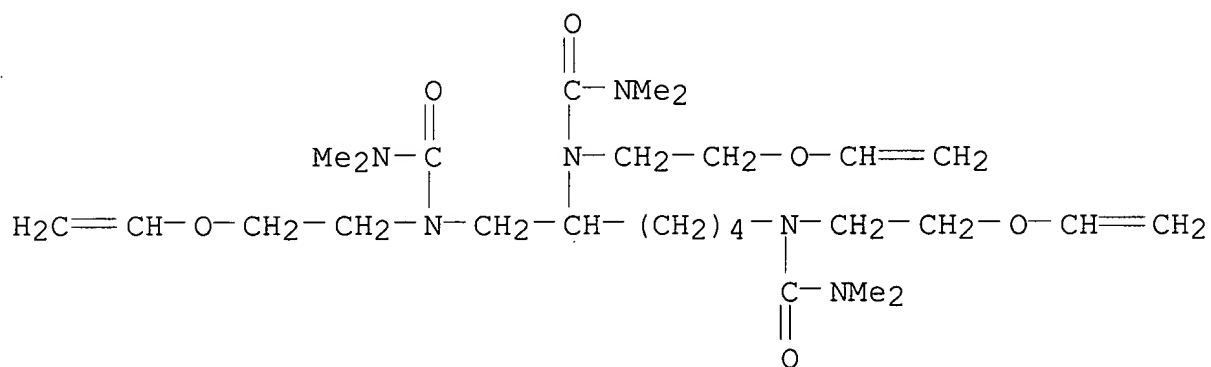
CN Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI)

(CA INDEX NAME)



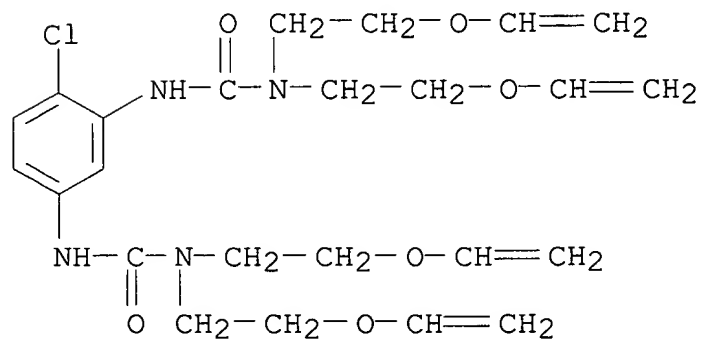
RN 117900-00-2 HCAPLUS

CN Urea, 1,1',1''-(1,2,6-hexanetriyl)tris[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



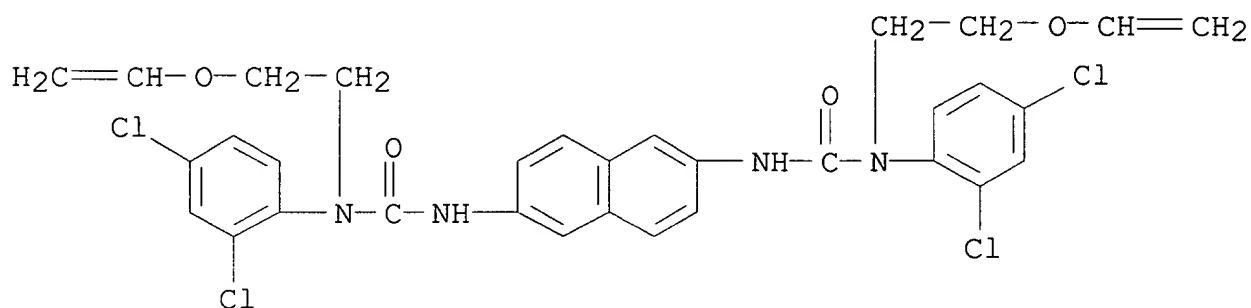
RN 118871-09-3 HCAPLUS

CN Urea, 1,1'-(4-chloro-m-phenylene)bis[3,3-bis(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



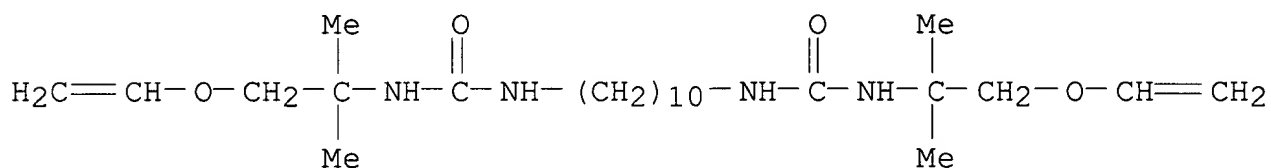
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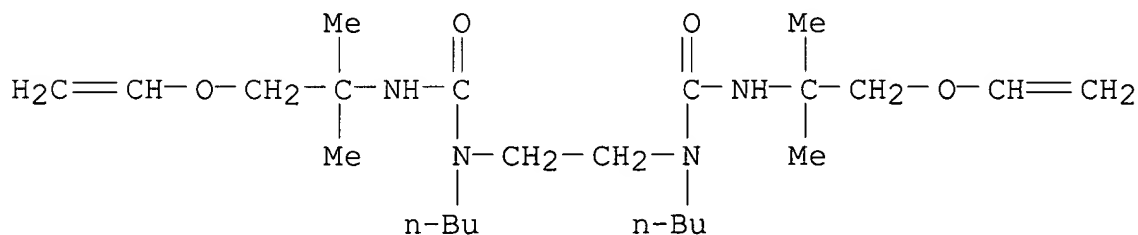
RN 119721-33-4 HCAPLUS

CN Urea, 1,1'-decamethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



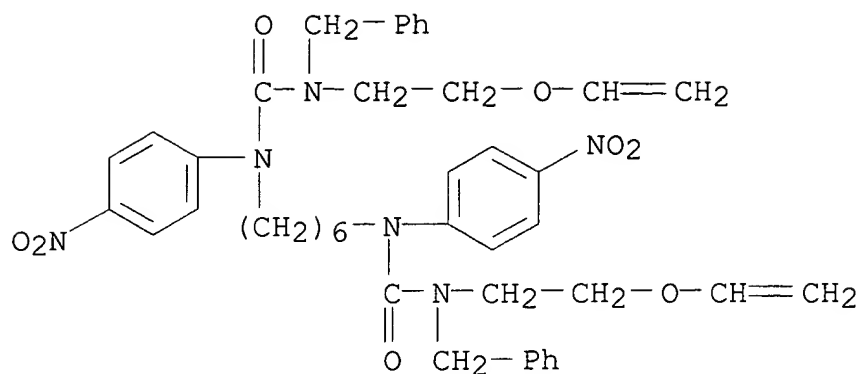
RN 119721-34-5 HCAPLUS

CN Urea, 1,1'-ethylenebis[1-butyl-3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



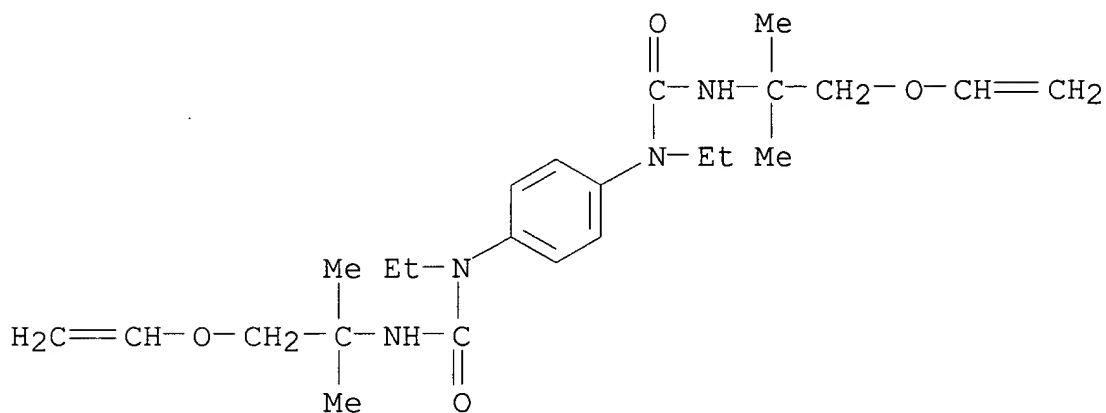
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CN Urea, 1,1'-hexamethylenebis[3-benzyl-1-(p-nitrophenyl)-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



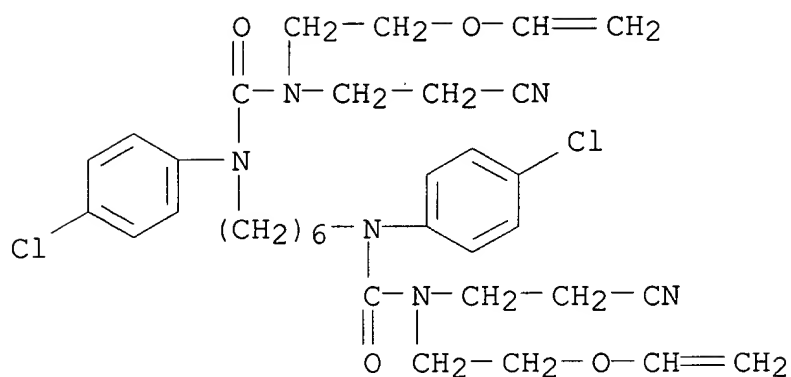
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CN Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-1-ethyl-
(6CI) (CA INDEX NAME)



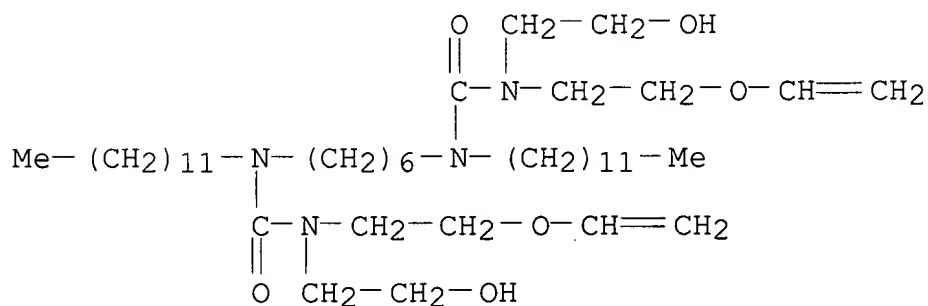
RN 121446-76-2 HCAPLUS

CN Urea, 1,1'-hexamethylenebis[1-(p-chlorophenyl)-3-(2-cyanoethyl)-3-(2-
vinyloxyethyl)- (6CI) (CA INDEX NAME)



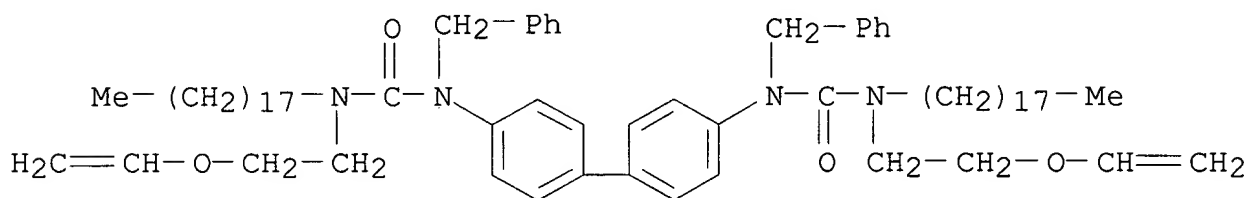
RN 122337-39-7 HCAPLUS

CN Urea, 1,1'-hexamethylenebis[1-dodecyl-3-(2-hydroxyethyl)-3-(2-vinyloxyethyl)-(6CI)] (CA INDEX NAME)



RN 122359-64-2 HCAPLUS

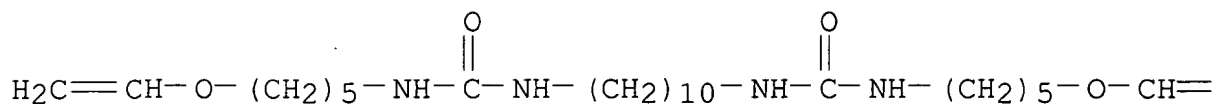
CN Urea, 1,1'-(4,4'-biphenylene)bis[1-benzyl-3-octadecyl-3-(2-vinyloxyethyl)-(6CI)] (CA INDEX NAME)



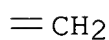
RN 122493-75-8 HCAPLUS

CN Urea, 1,1'-decamethylenebis[3-(5-vinyloxyethyl)-(6CI)] (CA INDEX NAME)

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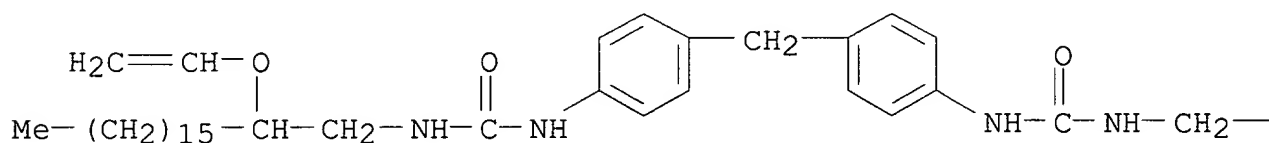
PAGE 1-B



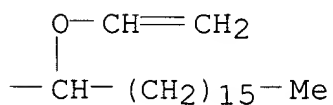
RN 124113-04-8 HCAPLUS

CN Urea, 1,1'-(methylenedi-p-phenylene)bis[3-(2-vinyloxyoctadecyl)-
(6CI) (CA INDEX NAME)

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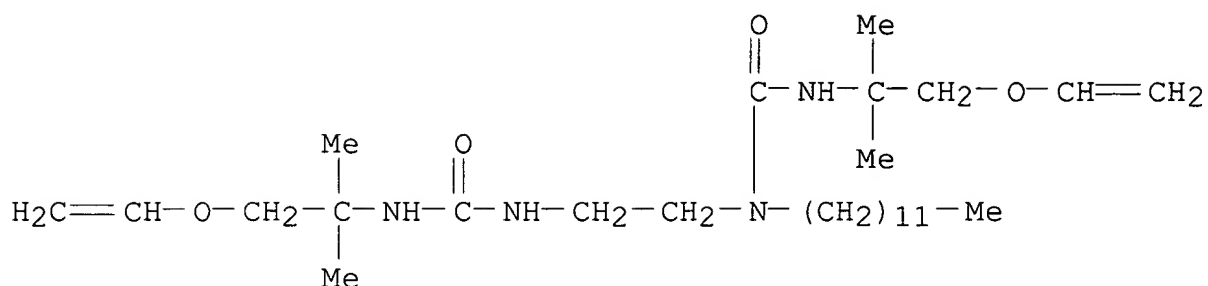


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RN 124403-16-3 HCAPLUS

CN Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)
IT 9002-88-4, Ethylene polymer 101880-61-9, 1,4-Piperazinedicarboxamide, N,N'-bis(1,1-dimethyl-2-vinyloxyethyl)-102944-94-5, 1,4-Piperazinedicarboxamide, N,N'-bis(1-ethyl-4-vinyloxybutyl)- 103507-15-9, Urea, 1-(2-vinyloxyethyl)-3-{8-[3-(2-vinyloxyethyl)ureido]-p-menth-1-yl}- 103757-55-7, 1,4-Piperazinedicarboxanilide, 4',4''-dichloro-N,N'-bis(2-vinyloxyethyl)- 107525-17-7, 1,4-Piperazinedicarboxamide, N,N'-dimethyl-N,N'-bis(2-vinyloxyethyl)- 108517-76-6, Urea, 1,1',1''-(methylidynetri-p-phenylene)tris[3-methyl-3-(2-vinyloxyethyl)- 109452-28-0, Urea, 1,1'-hexamethylenebis[3-(2-vinyloxyethyl)- 109501-98-6, Urea, 1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109568-61-8, Urea, 1,1'-tetramethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109643-40-5, Urea, 1,1'-hexamethylenebis[3-methyl-3-(2-vinyloxyethyl)- 109817-70-1, Urea, 1,1'-trimethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 110393-83-4, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 112555-37-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 113687-45-9, 1,4-Piperazinedicarboxamide, N,N'-bis(3-dimethylaminopropyl)-N,N'-bis(2-vinyloxyethyl)- 116029-39-1, 1,4-Piperazinedicarboxamide, N,N'-bis(1,1,3,3-tetramethylbutyl)-N,N'-bis(2-vinyloxyethyl)- 117900-00-2, Urea, 1,1',1''-(1,2,6-hexanetriyl)tris[3-(1,1-dimethyl-2-vinyloxyethyl)- 118871-09-3, Urea, 1,1'-(4-chloro-m-phenylene)bis[3,3-bis(2-vinyloxyethyl)- 119568-52-4, Urea, 1,1'-(2,6-naphthylene)bis[3-(2,4-dichlorophenyl)-3-(2-vinyloxyethyl)- 119721-33-4, Urea, 1,1'-decamethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 119721-34-5, Urea, 1,1'-ethylenebis[1-butyl-3-(1,1-dimethyl-2-vinyloxyethyl)- 120122-11-4, Urea, 1,1'-hexamethylenebis[3-benzyl-1-(p-nitrophenyl)-3-(2-vinyloxyethyl)- 120526-81-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-1-ethyl- 121446-76-2, Urea, 1,1'-hexamethylenebis[1-(p-chlorophenyl)-3-(2-cyanoethyl)-3-(2-vinyloxyethyl)- 122337-39-7, Urea, 1,1'-hexamethylenebis[1-dodecyl-3-(2-hydroxyethyl)-3-(2-vinyloxyethyl)- 122359-64-2